

1 CHAIRMAN SCOTT: Well, good afternoon and
2 welcome, everyone. Pursuant to the provisions of the
3 Illinois Open Meetings Act, I now convene a Plug-In
4 Electric Vehicle Initiative Policy Committee meeting
5 of the Illinois Commerce Commission. And here in
6 Chicago are Commissioners O'Connell-Diaz, Ford,
7 Acting Commissioner Colgan, and Commissioner Elliott
8 and myself, Chairman Scott. We have a quorum.

9 Today will be our second meeting of
10 this initiative. We last met in March for a
11 discussion of the utilities' initial assessment and
12 comments submitted on those assessments by a variety
13 of stakeholders. Since that time, the Commission has
14 issued a request for additional comments. We have
15 with us today the parties who responded to that
16 request for an ongoing discussion of key regulatory
17 topics related to the introduction of plug-in
18 electric vehicles to the Illinois marketplace.

19 Before moving into the agenda for
20 today's meeting, this is the time we allow members of
21 the public to address the Commission. Pursuant to
22 Section 1700.10 of Title 2 of the Administrative

1 Code, members of the public wishing to address the
2 Commission must notify the Chief Clerk's Office at
3 least 24 hours prior to the meeting. According to
4 the Chief Clerk's Office, we have received no
5 requests to speak from the general public for today's
6 meeting.

7 As a preliminary matter, I do have to
8 note that the opinions expressed by the Commissioners
9 in the course of this meeting are those of the
10 respective commissioner and should not be interpreted
11 as reflected in any Commission policy or the view of
12 the Commission as a whole, nor should they be viewed
13 as indicative of any action that the Commission may
14 take in pending future proceedings.

15 And, again, I want to thank everyone
16 for not only coming today, but for the comments that
17 we received and the work that has been done on this
18 issue over the past couple of years, certainly
19 predating my tenure here in the Commission. As I
20 speak with others around the country, I'm often
21 reminded that Illinois is looked at as a leader in a
22 number of energy-related initiatives, be it

1 competition, the portfolio standard, energy
2 efficiency standards, carbon sequestration portfolio
3 and research, smart grid and certainly on electric
4 vehicles and I think that on this and on other
5 initiatives, the Commission has an important role to
6 play in helping to develop policies that improve the
7 State's economy and the environment.

8 In the coming months, it will be
9 important for us to explore a number of issues
10 including the impacts on environmental regulations
11 which I've got some familiarity with on power
12 reliability and end generation.

13 It's really important, I think, to
14 recognize that not only are all of these energy
15 issues interrelated, but so, too, are all of the
16 entities that are charged with dealing with them. So
17 I think it's important to look for ways to work
18 together to find common ground in addressing the
19 issues that we identify and do it as proactively as
20 possible and that's the spirit with which we approach
21 this electric vehicle issues and the positive impacts
22 it can have on the economy and on the environment.

1 PEV policy, if we're smart about the
2 manner in which it's developed and executed, can help
3 to change the load shape, the generation profile and
4 even make better use of off-peak time wind resources.
5 It's also a potential catalyst for new technologies,
6 not just for PEV, but for other energy issues as
7 well. And as we move forward, we know that the
8 policies may appear in other public utility
9 commissions around the country, as well as in the
10 state and federal legislative bodies can and will
11 impact not only energy issues, but also be drivers on
12 technology. So it's incumbent that we get these
13 issues right.

14 I have been very encouraged by the
15 responses we've gotten to our inquiries on PEVs and I
16 believe there is a good amount of consensus on many
17 of the issues. I appreciate everyone's participation
18 and I looked forward to today's discussion and you
19 being here on -- battling not only the rain but the
20 traffic issues and some of the special issues that
21 we've had downtown here today, so we appreciate
22 everybody being here as well.

1 We've also been very fortunate on the
2 Commission to have Commissioner O'Connell-Diaz take
3 such an active role as the co-chair of this policy
4 committee not only doing that, but also in helping to
5 lead this discussion both here and in a number of
6 different groups outside of Illinois which she's an
7 active member. So I'd like Commissioner
8 O'Connell-Diaz to say a few words before we bring our
9 first speaker.

10 So, Commissioner.

11 COMMISSIONER O'CONNELL-DIAZ: Thank you,
12 Mr. Chairman.

13 Welcome everybody. It's so great to
14 see all of you here. We really looked forward to
15 getting your comments that we got, that we had a
16 robust filing of comments by many of you that are
17 seated in this room that are part of this initiative.
18 If you know other folks that don't know about this
19 initiative, we would invite you to spread that word
20 so that we have, really, the best of the best ideas
21 and information as we move forward.

22 As Chairman Scott said, this is a very

1 important initiative. While we really need to set
2 the table for our state, we can't do that alone, we
3 must depend on you. And as I look out into the forum
4 today, I see that we have many people that are not
5 regular attendees at our Commission sessions which
6 means that we've done this right because we're
7 drawing folks in that really have information and
8 critical ideas that we will need to make sure that we
9 get the deployment of electric vehicles and while
10 this is focused on electric vehicles, least we forget
11 gas vehicles or alternative vehicles in this era of
12 clean air -- the necessity of clear air and EPA
13 rollout, we're going to see all roads kind of leading
14 to the point that we have cleaner ways of producing
15 our energy and getting ourselves around. So I thank
16 you all.

17 I thank Chairman Scott for working
18 with us on this, also for our assistants who really
19 are the drivers behind this, Ambika Dolal, Anthony
20 Star, and all of the other work that goes on behind
21 the scenes from our assistants. We really appreciate
22 that. Brian Granahan also.

1 So without further ado, it's not about
2 us, it's about what you have to tell us and to share
3 ideas and we look forward to listening to you today
4 and coming up with the next place in the road that
5 you all think we should be at when we're doing this
6 initiative.

7 So thank you.

8 CHAIRMAN SCOTT: Thank you, Commissioner.

9 We've got two panel discussions
10 planned today. But before we get into the panels,
11 we're very pleased to have Kate Tomford from the
12 Department of Commerce and Economic Opportunity here
13 with us.

14 Kate will be providing an overview of
15 the new Electric Vehicle Advisory Council, which is
16 being formed pursuant to Public Act 97-0089, which
17 was signed into law by Governor Quinn in July. The
18 activities of our initiative here at the ICC have the
19 potential to inform the work of this new council. We
20 look forward to working with Kate and others on the
21 council on these issues.

22 So, Kate, would you like to take it

1 away?

2 MS. KATE TOMFORD: Thank you, Chairman.

3 My name is Kate Tomford. I work at
4 the Department of Commerce and Economic Opportunity
5 in the State Energy Office and my title is chief
6 sustainability policy advisor. I'm also going to be
7 serving as the New Electric Vehicle Advisory Council
8 chairman and coordinator pursuant to the bill that
9 Chairman Scott mentioned. It was House Bill 2902
10 signed by Governor Quinn on July 9th and it formed
11 the Electric Vehicle Adoption Act, which is effective
12 immediately. It's Public Act 97-0089.

13 The Act created the Electric Vehicle
14 Advisory Council and it also created the position
15 that I'm filling, the electric vehicle coordinator,
16 which was supposed to be a DCA existing employee.
17 The coordinator will act as a point person for
18 electric vehicle-related policies and activities in
19 Illinois and also chair the council.

20 The council is comprised of 18 members
21 in addition to the coordinator. The 18 include 4
22 legislative appointees appointed by the House and the

1 Senate majority and minority leaders, 4 agency
2 appointees from the ICC, the Illinois EPA, the
3 Department of -- Illinois Department of
4 Transportation and Illinois DCEO and all of those
5 appointees have been selected already. Then in
6 addition, the Governor has 10 at-large appointees and
7 these include 4 representatives from environmental
8 organizations, 2 representatives from auto
9 manufacturers, 2 representatives of electric
10 utilities, 2 representative of a nonprofit car
11 sharing organization and 1 representative of the City
12 of Chicago and those appointees have not been
13 finalized yet, but I expect that the Governor will
14 finalize them this week.

15 Anyone wishing to apply to be on the
16 council can apply through the
17 appointment.Illinois/gov Web site and we have had a
18 lot of people apply so far, more candidates than
19 slots available, I'll note. That link for the
20 application is on the Web site itself. So that's
21 open to anyone who's interested.

22 According to the law, the council is

1 tasked with investigating and recommending strategies
2 that the Governor and General Assembly may implement
3 to promote the use of electric vehicles. The
4 recommendations must be delivered in a report by the
5 end of this calendar year, December 31st.

6 According to the law also, the topics
7 must include, but are not limited to, potential
8 infrastructure improvements, state and local
9 regulatory streamlining and changes to electric
10 utility rates and tariffs. More specifically, and in
11 addition to the topics that are actually listed in
12 the law, I anticipate that the council's
13 recommendations will address incentive programs to
14 promote EV adoption and use, particularly off-peak
15 charging, the build-out of a statewide electric
16 vehicle charging station network, distribution system
17 upgrades, regulation of metering, whether at public
18 or in-home stations, on board vehicles or at other
19 locations; local permitting processes for charging
20 stations; consumer education on EV use, station use
21 and in-home station installation; safety precautions;
22 data management protocols, including privacy issues;

1 and vehicle-to-grid policies and regulations.

2 In terms of the activities of the
3 council, I expect that they will include a fairly
4 brief survey of the EV pilots programs and
5 initiatives, a policy initiative to date in Illinois,
6 what has worked well and what the challenges have
7 been; a process to identify best practices from other
8 states, a process to identify federal resources that
9 may be available to Illinois as we implement EVs here
10 and then finally formulating recommendations and
11 writing a report to deliver to the Governor and the
12 General Assembly as the law requires.

13 In terms of the administration of the
14 council, we are required to meet from now through
15 December and I anticipate that we'll probably have
16 monthly meetings, so one in September, October and
17 November and December. We'll likely divide into
18 working groups to address specific issues and to
19 formulate recommendations and then write them for the
20 report. The meetings will be open to anyone who is
21 interested in attending, although we do have the
22 formal appointees. The selection of appointees is

1 competitive. As I mentioned, we have more candidates
2 than slots available, so we will likely create a
3 stakeholder list and an e-mail distribution list so
4 that everyone will have an opportunity to receive
5 alerts about meetings and have the opportunity to
6 attend.

7 We're certainly looking forward to
8 having Tim Anderson as our ICC representative on the
9 council and to working closely with the ICC and this
10 initiative to put together recommendations for the
11 governor and the General Assembly. Thanks.

12 CHAIRMAN SCOTT: Thanks, Kate.

13 Are there questions that anyone has?

14 (No response.)

15 It sounds like a lot to do in a short
16 period of time. With that, any questions at all?

17 (No response.)

18 Okay. Thanks very much, Kate. We
19 appreciate you being here.

20 Our first panel this afternoon will
21 consist of Ameren and they're already seated at the
22 table, Carbon Day, ComEd, ICEA and Mid-American. We

1 also had the Electric Vehicle Service and Equipment
2 Provider Coalition, Alana Chavez-Langdon from
3 ECotality was listed to be here, we got a call,
4 Commissioner O'Connell-Diaz that --

5 COMMISSIONER O'CONNELL-DIAZ: She called and
6 she was stuck in St. Louis and I feel really bad
7 because she came all the way from California to be
8 with us today, so that's dedication and -- so she's
9 sitting in an airport and I said, Well, could she
10 hook up by phone? And then I thought the background
11 noise might not be so good, so we really appreciate
12 her efforts to get here and hope that she will be
13 here to hook up with us at some point in time later.

14 CHAIRMAN SCOTT: I think we anticipate -- thank
15 you, Commissioner.

16 I think we anticipate today being more
17 of a conversation and kind of questions; but I think
18 what we'll do first, though, is just if each of the
19 panelists would go around and briefly introduce --
20 briefly introduce yourselves so that -- for purposes
21 of those who aren't here and also for purposes of
22 facilitating the discussion, we can do that. So just

1 start here with Commonwealth Edison.

2 MR. GABEL: I'm Dan Gabel, ComEd's manager of
3 electric vehicles and smart grid technology.

4 MR. HEMPHILL: Ross Hemphill, vice president of
5 regulatory policies and strategies.

6 MR. EMALFARB: Thank you, Ross. Hal Emalfarb,
7 general counsel of Carbon Day.

8 MR. KOZAK: I'm Eric Kozak with Ameren and I'm
9 in charge of the fleet for the state of Illinois.

10 MR. WISEMAN: I'm Scott Wiseman, I'm vice
11 president for regulatory affairs for Ameren.

12 MS. WILLIAMS: I'm Aundrea Williams with
13 Reliant Energy, senior director of regulatory
14 strategy and policy here on by ICEA today.

15 MS. KUTSUNIS: Debbie Kutsunis, MidAmerican
16 Energy Company, manager of regulated pricing.

17 CHAIRMAN SCOTT: Anyone want to start off and
18 lead with any questions?

19 (No response.)

20 I'll start. So we had asked in our
21 submissions to you and got back great responses from
22 lots of different folks, and so I'm trying to narrow

1 those issues down a little bit and I'm trying to come
2 to some consensus that leads us to the next steps
3 going forward after the meeting today. So just start
4 off with a question that we asked about the -- what
5 is this, what kind of entity, you know, should this
6 be and everybody responded to that. If we were to
7 decide, as was suggested from a number of the sets of
8 comments, that we were to make an affirmative
9 statement that the public charging is not a public
10 utility as was suggested by a lot of the commenters
11 or that it's a competitive service, what would be the
12 right forum for that statement? I mean, do you think
13 we can do that? Could we do that unilaterally? Does
14 it require a docketed proceeding, legislative
15 proposal, something else? What -- you know, how
16 would we approach something like that if that were to
17 be the consensus?

18 So anybody can start. If we want to
19 try to have a discussion, we can.

20 So, Ross.

21 MR. HEMPHILL: Yes. First of all, I want to
22 thank you, Chairman and Commissioners, for continuing

1 with this initiative and especially for inviting us
2 to participate.

3 As we've said earlier, ComEd takes the
4 development of the EV market seriously for a couple
5 of reasons. One is obviously there's potential
6 substantial benefits that society can enjoy by the
7 development of this market; but also if not done, if
8 not implemented correctly, there can also be some
9 substantial costs and problems, you know, for
10 customers as we've all discussed.

11 To answer your question directly,
12 obviously, I think everyone seems to agree that the
13 direction should be in terms of identifying the other
14 charging stations as competitive, it's not a public
15 utility and that the best way that we -- our
16 collective minds, in terms of the regulatory area
17 that we've been thinking about, is that the
18 Commission should act -- they should act, I think,
19 decisively because there are certain things that I
20 believe should not be left uncertain. The
21 development of competitive market is not -- you know,
22 does not mix well with a lot of uncertainty. So I

1 think if there was some type of a resolution that
2 would be introduced by the Commission, that would be
3 acceptable to us and I think actually preferable.

4 CHAIRMAN SCOTT: Scott.

5 MR. WISEMAN: Yeah, thank you, Mr. Chairman,
6 Commissioners.

7 You know, I don't disagree with
8 anything Ross said. I will tell you that, you know,
9 Ameren Illinois is very excited about this. It's
10 nice to see everybody in this room all on the same
11 page and there are a lot of folks here and the
12 organizations that we're with and a lot of times
13 we're on different sides here and it's nice to be all
14 on the same page here. It's exciting for the State
15 and as you had pointed out, Mr. Chairman, in your
16 opening remarks, Illinois has been a leader in a lot
17 of different things that have been looked at by other
18 states and this is another one of those things that
19 because we've -- we have deregulated and -- in a way
20 we've got our public utilities set up in a certain
21 way.

22 I think, you know, before going out

1 and making any declarations, you have to take a look
2 at the legal status of things. I'm sure there are
3 some legal opinions you want to look at and maybe if
4 there's any other regulatory regimes like ours or
5 paradigms like ours, I should say, see maybe what
6 they've looked at, what they've done, what homework
7 they've done on these things. You may eventually get
8 to the point where, as Ross suggested, you make that
9 kind of a statement, but I think that's not going to
10 be too far afield from what will help drive the
11 initiative and the rollout of the vehicles in the
12 future.

13 Now, with that, you know, Ameren
14 Illinois, as you know, we're downstate. We threw out
15 all the statistics that we've looked at, all the
16 studies that we've looked at. We're going to be one
17 of the last areas in the state in our territory,
18 except for pockets around Champaign-Urbana or maybe
19 some other cities, Bloomington-Normal, Springfield,
20 where, you know, out in the more rural areas, they're
21 probably not going to get to electric vehicles as
22 quickly as some of the more urban areas. So it's

1 going to be important for us to watch what's going on
2 in the ComEd territory and other urban territories so
3 that we're learning from their experience. I wanted
4 to make sure I pointed that out as well.

5 COMMISSIONER FORD: I thought you would like to
6 know that there is a charging station in the garage
7 at 203 North Clark on the 2nd floor and I don't know
8 if that's a City effort or is that an effort for
9 the -- from the State? It's on the 2nd floor of 203
10 North Clark where I park every day.

11 MR. EMALFARB: Hal Emalfarb, Carbon Day.

12 Commissioner, Brian Levin (phonetic),
13 our client, indicated that it's one of his charging
14 stations that he sold to one of the parking garage
15 people. Carbon Day came out -- I kind of feel it's
16 an interesting position. I'm sitting here with the
17 utilities on both my sides. I don't know if I should
18 go like this or go like this.

19 (Laughter.)

20 But I think that taking what the
21 Chairman said -- the Commission, I mean, I think
22 whether it's legislation or Commission docket, as

1 stated in the resolution, what's key here is the
2 leadership and the certainty. That's really what we
3 need, okay. And having the brief time that we've
4 been in this space, as demonstrated a little bit by
5 this chart, which is two years of seeing nothing
6 going on and all of a sudden, something called the
7 leaf and the vault showed up on the neighborhood
8 streets by the industry, by the stimulus activity and
9 by all the good policies that you mentioned, because
10 the study goes back historically and -- meaning
11 people that have actually done this, such as
12 yourself, the new members, Commissions, legislatures
13 and this place, Kate Tomford, who has been there -- I
14 mean, we run across Kate everywhere in this state --
15 35 megawatts was charged last month, which equates to
16 1 million miles and that's being done because
17 electric cars are here.

18 So I think what's going to happen --
19 and I disagree slightly with your statement, Stuart
20 (sic), because I think that -- I know Carbon Day's
21 viewpoint is really just the opposite. We want to
22 diversify. We do not want to limit and we want

1 innovation to come from the bottom up and a lot of
2 our activities has been looking at highway plans
3 between Buckingham Fountain and Route 66 and
4 St. Louis, getting involved in the communities
5 because we think these are the communities that need
6 the economic development help right now to push it
7 forward.

8 So we think the innovation actually is
9 everywhere and we didn't want to predict where it's
10 going to be, even though we're pretty heavily
11 involved, as you're mentioning statistically here, we
12 actually would like to work with Ameren and work with
13 the other utilities, other people in the industry
14 that will be here, too.

15 So you're going to see charging
16 stations, we think in all kinds of neighborhoods in
17 all kinds of cities. When we went on the stimulus
18 EECBG funding tour and Kate was there and monitoring
19 stuff with vehicles and other things, we saw the
20 business of technology that works in big cities,
21 little cities, it's every where. This is electricity
22 and the access to electric is what the issue is all

1 about and we're looking for open markets, competitive
2 ways and industries have already been launched and it
3 couldn't have been without what presided us.

4 CHAIRMAN SCOTT: So you wouldn't disagree with
5 the statement that was made that whatever needs to be
6 done has to be fairly quick given what you're saying
7 about the trends and fairly decisive --

8 MR. EMALFARB: Yes.

9 CHAIRMAN SCOTT: -- to accommodate any kind of
10 uncertainty?

11 MR. EMALFARB: Absolutely. Absolutely.

12 MR. KOZAK: And let me just clarify this
13 briefly. We are absolutely ready to work in any way,
14 shape or form as quickly as possible. If it hits and
15 it's tomorrow, we're ready to deal with it. I don't
16 want to throw any water on being -- wanting to get
17 stuff done.

18 CHAIRMAN SCOTT: John.

19 COMMISSIONER COLGAN: But also, many of the
20 comments were saying that it would be way too
21 premature for us to change any existing policies or
22 regulations. So, I mean, what is it? I mean, are

1 you expecting us to -- I saw your chart there. It
2 looks like it's almost going straight up. Do you
3 think it's going straight up or is it going to be
4 rolled out over time as Scott kind of implied that it
5 might? What's your anticipation and what's the best
6 way for us to have an ongoing dialogue or a format?
7 What is the right format for us to continue to
8 operate under?

9 MR. EMALFARB: If you look at the role --
10 Mr. Gabel has been very actively involved in the auto
11 manufacturing -- he can talk specifically, but the
12 charging station point is we will have this year in
13 Illinois 500 stations. We'd like to spread them out
14 as much as possible. We're already in the Midwest in
15 about another 75 to 100 stations, so in -- it's
16 not -- Elkhorn, Iowa, there is 13 charging stations,
17 more charging stations per human being than anywhere
18 in the world, okay, because that's the home of the
19 electric car, it was born in Iowa. So -- one of the
20 people got it there, that's where the innovation
21 comes from.

22 In 2016, the reports say in Illinois,

1 we are predicted 200,000 stations plus or minus in
2 conjunction with the projected rollout of the
3 manufacturers, which I think is conservative because
4 estimates -- we're going to go from nothing straight
5 up for a little while and then eventually like
6 anything else, I'm sure it will rollout, but we're
7 ready for a roller coaster.

8 MR. HEMPHILL: And, Commission Colgan, what I
9 stated earlier, I think there's some fundamental
10 issues that we need some decisiveness in order to
11 show direction to limit the uncertainty, but I
12 believe that that doesn't mean you just take all
13 hands off because this is uncharted waters. And so I
14 think either, you know, through workshops or some
15 continuing form where you are able to check in as to
16 how things are developing and are there problems that
17 are being encountered that haven't been anticipated.
18 That type of thing is, I think, something that you
19 are going to want to do. I think everyone is going
20 to want to participate in that because there's just a
21 lot of learning to go on here.

22 COMMISSIONER COLGAN: Have you set out a

1 schedule for having quarterly meetings, monthly
2 meetings, or something like that, workshop process?

3 MR. HEMPHILL: That would be very, very, very
4 good, both in terms of bringing in the experience in
5 terms of development in the area, maybe from other
6 parts of the country, to see what's being learned
7 there, you know, both in terms of technology as well
8 as policy issues.

9 MR. GABEL: And the other important piece of
10 that, too, is just having the diversity of
11 stakeholders represented at these meetings. I mean,
12 you cannot underestimate the value of the
13 collaboration or the collaborative nature that this
14 has to take on. This is not just going to be -- this
15 is not just an issue for the auto makers, for the
16 utilities, for the equipment providers, this is going
17 to affect all of us and the cars are coming, they're
18 coming fast. Every major auto manufacturer has got
19 development plans, if they don't already have them on
20 the street, and pilot testing certainly within the
21 next couple of years.

22 So to have the number of stakeholders

1 represented at these discussions and have ongoing
2 discussions, not only will you get that diversity of
3 insight, but you'll also have that many more
4 different eyes kind of watching the industry, if you
5 will, in being able to kind of keep on top of this as
6 we go along.

7 CHAIRMAN SCOTT: I'm sorry, I didn't want to
8 ignore the other side of the panel here. So, please.

9 MS. WILLIAMS: Thank you, Chairman,
10 Commissioners, for the opportunity to participate in
11 this.

12 I think just fundamentally, as a
13 retail advocate at its purest form, generally
14 speaking the tentative regulation is the exception
15 rather than a rule. But to the extent the Commission
16 deems it necessary to provide some general oversight
17 specifically on things like providing EV charging
18 stations is not a utility function and it is a
19 competitive service. I think there are a variety of
20 ways in which you can do that and ICEA members would
21 support any of those ways that you make those
22 declarations.

1 CHAIRMAN SCOTT: Please.

2 MS. KUTSUNIS: Thank you, Chairman, for the
3 opportunity to be here.

4 From MidAmerican's perspective, we
5 actually think the cleanest way in Illinois would be
6 the passage of legislation that would eliminate any
7 doubt; however, we would be supportive of whatever
8 approach you determined you'd like to take.

9 COMMISSIONER O'CONNELL-DIAZ: If there was a
10 wish list, what would be in that legislation? To
11 have a list?

12 MS. KUTSUNIS: I do not have a wish list with
13 me, but to clearly state that charging is not a
14 public utility, make it clear that it's a competitive
15 opportunity and essentially get rid of any doubts
16 that may exist.

17 COMMISSIONER ELLIOTT: I was just thinking,
18 perhaps, there might be something -- collaboratively
19 there isn't a center among that you that goes into
20 the advisory report at the end of the year.

21 CHAIRMAN SCOTT: Commissioner Colgan.

22 COMMISSIONER COLGAN: You mentioned -- what did

1 you say, by 2016, you're going have 2000,000 charging
2 stations in Illinois?

3 MR. EMALFARB: That's the predictions of the
4 ABI report and other --

5 COMMISSIONER COLGAN: Just for Illinois?

6 MR. EMALFARB: Just for Illinois alone.

7 COMMISSIONER COLGAN: How many cars are there
8 going to be?

9 MR. EMALFARB: Well, you can usually -- first
10 of all, what kind of charging stations? Because I
11 think that's kind of important to understand that.
12 66 -- about 60 percent, plus or minus, is going to be
13 home charging, the majority, and then you're going to
14 have at work and then you are going to have retail or
15 like public places, basically. The members of this
16 panel have been driving electric. I know Mr. Gabel
17 has a Volt that he drives and it's a very diverse new
18 method of charging locations.

19 COMMISSIONER COLGAN: So a million electric
20 vehicles by what was it the president said --

21 MR. EMALFARB: 2015.

22 COMMISSIONER COLGAN: -- is not too optimistic?

1 MR. EMALFARB: No, I don't think so. I think
2 the American public -- I thank the Chairman and the
3 Commissioners here today for having this. We're a
4 little bit behind the national eight ball as far as
5 getting it out here in time, but the timing couldn't
6 be more perfect, in my opinion, and we've been
7 around. And, you know, I've seen Mr. Gabel,
8 Mr. Hemphill, Ameren, these are leaders, MidAmerica
9 and your company from the Retail Organization, these
10 policies are in place, they're here. A company comes
11 in like ourselves into an open market like this, it's
12 like an opportunity. There's going to be a lot of
13 other organizations and we're welcoming the openness
14 and the competition. We believe it's going to be
15 very good. Let the best idea win and flow, but I
16 think that's what going to development and I think
17 we're going to be surprised because these
18 manufacturers aren't here to play, they're here to
19 sell and what they're selling, in essence, is
20 sustainability because -- I hope because Carbon Day
21 is standing for renewable and clean energy, that's
22 our goal in trying to get the charging fuel out there

1 and in doing that, we're going to achieve energy
2 independence.

3 These news stories about the price of
4 oil, to us that drive electric, they're moot. We
5 have a reliable marble that we're relying on and when
6 we wrote the words of how we're going to save energy
7 and transition of wealth and grant applications, a
8 lot of it went into deaf ears, but we filed them and
9 wrote them together, now we have these things
10 happening and as they happen, I believe in every
11 community, this technology is going to be an economic
12 development tool.

13 COMMISSIONER FORD: Was that Volt 41,000 or 27?
14 Which one was 27 and which one was 40,000?

15 MR. GABEL: I'm sorry?

16 COMMISSIONER FORD: How much was that Volt?
17 Was it 41,000 or 27? I remember reading somewhere
18 that those cars --

19 MR. GABEL: The Volt retails around 41,000 and
20 then there's a federal tax credit of about 7,500.

21 COMMISSIONER FORD: Thank you.

22 CHAIRMAN SCOTT: Let me ask a question then

1 given the kind of ambitious nature of the rollout
2 that we're talking about. A million vehicles,
3 200,000 charging stations, look directly at our
4 distributor -- our electric distributors, what does
5 that do? Tell me what that -- what impact that
6 has -- given the fact that 60 percent, plus or minus,
7 are in home charges, tell me from a grid standpoint,
8 from a reliability standpoint, given all the other
9 things that are coming down the line in terms of
10 power generation, maybe just an assessment of what
11 that does.

12 COMMISSIONER ELLIOTT: They were all on line
13 there in that last heat storm every day at
14 4:00 o'clock. What does that mean?

15 MR. GABEL: From a grid-wide perspective in a
16 capacity standpoint, the grid itself, as a whole, is
17 capable of a pretty significant infusion of electric
18 vehicles and more specifically electric vehicle
19 charging; where you have the bigger concern and
20 potentially more issues is at the most local levels,
21 the service transformers on the poles behind the
22 homes.

1 COMMISSIONER O'CONNELL-DIAZ: Just real -- this
2 is very basic and this is going to Mr. Emalfarb's
3 commentary and good salesmanship. If we have -- like
4 in the City of Chicago, I'm envisioning that these
5 will be like gas stations of the future and if we
6 have, in a four-block area, any charging stations --
7 and I see this as a City situation, but it could be a
8 suburban situation, too, does that have a reliability
9 impact on that area and will there need to be costs
10 incurred to upgrade that area? Because there now is
11 a demand that doesn't exist there now and it may not
12 be a Level 1, it might be a Level 2 charging station,
13 so from a reliability and a cost factor, will we be
14 looking at increased costs for that to the utility or
15 to -- yeah, to the utility to be able to make sure
16 that that charging station stays on as well as that
17 six-block radius that those lights stay on, so --

18 MR. GABEL: Well, there could potentially be
19 upgrades needed to, you know, the utility equipment
20 serving the area, particularly at Level 2. Level 1,
21 that's your standard 120-volt outlet, it's about the
22 load of a hair dryer. It's not a significant load in

1 terms of impacting the utility system. Where you do
2 get into the issues when you start getting that
3 level, the 240-volt charging and above, that's
4 exactly why it's essential that the utility knows
5 ahead of time where that Level 2 charging is going
6 in, whether it's through the permitting process or
7 through the vehicle registration process, some
8 process where the utility knows ahead of time that a
9 customer or whether it's a residential or retail or
10 even a municipality is installing this Level 2
11 charging, that way they can go out and assess the
12 equipment. If we know the charging is coming in
13 question, assess the equipment and make the necessary
14 upgrades to ensure the system reliability because,
15 again, it's not just about the reliability of the
16 service to that individual customer with the EV, it's
17 all their neighbors that are fed off of that same
18 equipment.

19 So it -- again, with the Level 2,
20 there is that concern, especially if you get them
21 clustered, if you will, in particular areas which, is
22 kind of the thought right now, that EV adoption will

1 be somewhat clustered by a geographic area and
2 subsequently by areas on the grid. So we need the
3 advanced notification of where it's going in, but
4 also technology can also be a big benefit to
5 mitigating those impacts on the grid. Smart metering
6 in an AMI network is one key technology that can
7 really help because not only does smart metering
8 enable advanced rates that give those consumers who
9 purchase an EV more options, more control and choice
10 over how and when to use that electricity, it also
11 provides the communications background, basically, a
12 two-way communications network for integration of
13 electric vehicle charging stations or EVSCs into the
14 smart grid.

15 So, basically, these charging systems
16 can become just another note on a smart grid and
17 there's a whole host of technologies out there today
18 that can simply be integrated into these charging
19 stations using that communications background that
20 the AMI network provides to manage the charging, how
21 they charge, when they charge, whether it's through a
22 direct load control program or simply, again, tied to

1 an advanced rate. For example, setting up the
2 charting station to only turn on when my electricity
3 cost is 5 cents a kilowatt hour or less. That
4 technology exists today, it's just a matter of
5 integrating it into it.

6 So it's both, I guess, process and
7 technology, that can be used to mitigate those
8 effects.

9 MR. HEMPHILL: If I could just add very quickly
10 one of the things you mentioned, Commissioner, was
11 the cost and we talked about this before and
12 something I want to state is that I think we, like
13 every other utility, believes very firmly that you
14 want a price to reflect the cost causation. There's
15 a lot to be learned and this is one of the areas that
16 we're going to learn a lot. Obviously, you do direct
17 assignment where you can identify that directly, but
18 then there are going to be shared facilities and
19 impacts on shared facilities and we're going to have
20 some dialogue going forward as to the best way to
21 reflect that through, you know, cost allocation as
22 well as the distribution rates.

1 COMMISSIONER ELLIOTT: If I could follow up on
2 that, just a little finer point. I would just leave
3 the sort of residential charging off to the side and
4 assuming that this Take 1 is a completely competitive
5 perspective, assuming that the marketplace, these
6 things are going to cluster around where vehicles are
7 and you're going to have a concentration of demand in
8 these areas and potential upgrades reflective of
9 that; in a competitive environment, most likely those
10 costs will be directly assigned, I'm assuming, to the
11 degree that they could be. That's part of the issue
12 I think is going to be cost allocation and the
13 responsibility --

14 MR. EMALFARB: I think, Commissioners, these
15 are really questions that we are going to experience
16 as we actually apply them, but I think we have to do
17 some planning for this, and so part of the planning
18 process is we're working with Northwestern University
19 and the Department of Transportation. They came up
20 with a planning tool and that planning tool has had
21 feedback from ComEd and other utilities across the
22 country. We were coordinating with other communities

1 like San Francisco, which is ground zero for this,
2 trying to get their feedback so we can learn fast.
3 Some cases they're teaching us and in some
4 situations, we're teaching them.

5 One of the things that we would do to
6 offset that kind of impact is we're looking at new
7 technologies, we've heard of vehicle-to-grid, that's
8 not going to come out for a while. We're looking at
9 other energy storage opportunities. Those other
10 energy storage opportunities and energy management
11 systems and the way our technology is designed, we
12 have a demand response built into it. So right now
13 today, we can take today that station that you
14 mentioned --

15 COMMISSIONER FORD: 203 North Clark.

16 MR. EMALFARB: What's the address,
17 Commissioner?

18 COMMISSIONER FORD: 203 North Clark.

19 MR. EMALFARB: We can go there today right now
20 and turn that station off at this very second. We
21 have utility portal technology that's ready. We
22 working with that to bring the utilities together.

1 So we're ready to test and try -- and try to avoid
2 these costs that are unnecessary trying to mitigate
3 against these costs to put them on the grid and leave
4 them on the private sector or on -- what I look at as
5 a private public utility partnership, I don't know
6 that such a legal document -- an attorney, not in
7 this area. So is there such a thing as PPU? I don't
8 know. Maybe he can tell us, but that's where I see
9 the opportunity, because it can't go on all the
10 utilities, it certainly can't go on the public and
11 certainly can't be borne at least 100 percent, at
12 least not now, on the private sector.

13 So what really makes sense, to
14 minimize these costs and how can we shape the loads
15 and shape these costs so they can be balanced out?
16 And that's why the smart grid comes in. So that's
17 why I think your timing is perfect because this
18 whole -- when you go forward in the smart grid world,
19 a utility's new infrastructure, but the smart grid
20 world that I'm looking at is actually the plug-in
21 employee on the other side of the meter.

22 We, as the private sector of

1 innovators, want to plug into that and it can't be
2 left out and I have no idea, because I'm not an
3 expert in the legislation, you know, with what's
4 going on in smart grid; but that factor, the private
5 sector, and how that's going to work -- we have
6 business models that we think that are going to pay
7 for this that are charging and beyond charging.

8 And, Commissioner, the wholesale
9 markets with FERC and NARUC and these other things
10 going back and forth are things that we're looking at
11 right now and we've got the best minds between
12 Stanford Ph.D.s and this Committee Chairman working
13 in Illinois on these deployment opportunities to try
14 to get this done and we need more help because
15 there's a lot of smart minds in this room.

16 COMMISSIONER FORD: I want the smart minds to
17 be in this room, but I don't want us to come back
18 with a \$41,000 car to socialize cost. I want the
19 smart minds to be --

20 COMMISSIONER ELLIOTT: I think a lot of this
21 sounds like sort of distribution level --
22 interconnection agreements at the transmission level

1 where the question of who pays --

2 COMMISSIONER FORD: Absolutely.

3 COMMISSIONER ELLIOTT: -- going back to the
4 transmission grid and who pays the upgrades that are
5 necessary for the load or the supply to come into the
6 system. Those cost allocation issues are not minor
7 and I don't believe they're going to be minor in this
8 case.

9 In fact, if anything, at the
10 distribution level with the regulatory oversight, the
11 granularity that you have, you are probably going to
12 see a lot more issues surrounding this unless you can
13 come to some resolution on these issues, you know,
14 prior to the implementation of these things. So
15 really the question becomes who pays? Are you going
16 to socialize the costs to the utility? Are you going
17 to socialize it to the industry?

18 COMMISSIONER FORD: Ratepayers.

19 COMMISSIONER ELLIOTT: I mean, is it
20 100 percent the interconnector pays or 90/10, 50 --

21 COMMISSIONER O'CONNELL-DIAZ: But then we get
22 into the cost -- we get into the benefit cost and

1 whether we can benefit the -- is it the clean air?
2 Is it the -- so do we all benefit? Is the
3 non-dependence on foreign oil to, you know, fuel our
4 transportation? These are benefits that I -- that
5 amount of -- I don't think there's an amount of
6 money -- well, probably with the health benefits,
7 there probably is an amount that's been tagged to
8 that, but I don't know what that number would be to
9 not be pumping Iraqi oil into our tanks. But, you
10 know, that's the other side of the benefit part and
11 then it's -- to me, it's like mass transit kind of
12 costs, like, do we want people on trains or should we
13 all be driving our own cars? We would like to have
14 them come to the city on trains because there's less
15 pollution, less gas.

16 So with the gathering of all of these
17 data points or data, that is what the Commission can
18 facilitate in in order to really understand how we
19 fairly distribute this cost based on what the
20 benefits are and what those actual costs are and
21 without that, it's hard to be at the control switch
22 for anything. And so is that how the Commission can

1 construct this process as we move forward?

2 MR. EMALFARB: Well, the value in energy
3 savings and consumers alone, when you drive 10
4 percent of the miles in Illinois, are quickly
5 calculated subject to a lot more factors; but 1.6
6 billion annually, that's the value. So maybe in 2016
7 to 2020 and then it will grow from there.

8 So there's some value opportunities
9 because the cost of electric transportation fuel is
10 about 20 to 25 percent of the cost of oil fuel plus,
11 again, the certainty of having a reliable system and
12 a local system where the money is being spent
13 intelligently within our own backyard and not being
14 driven by these, you know, uncertain aspects that's
15 apparent in this global world needs to be, you know,
16 eliminated, if at all possible, for security reasons,
17 let alone economic reasons, let alone common sense.
18 But I think that the data abilities of the network
19 that we've looked at and the technology that's been
20 built through the industry that's developing will be
21 one that will be open standards that will be shared
22 by other people that will be involved. It will be

1 information that you'll be able to rely on and track
2 because I think that's kind of key because -- to
3 provide the data to keep track of the opportunities
4 and the costs.

5 MR. KOZAK: You know, our friends over at
6 Homeland Security do what's called tabletop exercises
7 on different scenarios and I think that's what maybe
8 you've hit on, Commissioner, is perhaps we need to
9 get a tabletop exercise of some sort under Commission
10 rules, of course, that, you know, we react and you
11 see how it turns out and maybe that provides us a
12 vision to where we need to go and make some changes.

13 MR. HEMPHILL: Yeah, and the answer -- my
14 answer to your question too is, Yes. That's a very
15 important role that the Commission can play and
16 that's what I referred to earlier, is the learning
17 that needs to go on. The facilitation of that
18 learning I think is a very important role and I was
19 sitting here thinking -- I'll open it up to the
20 panelists as to whether they agree or disagree with
21 me. I was thinking about the two most important
22 issues that are going to have to be dealt with that I

1 believe the Commission will have a direct bearing
2 on -- and should have a direct bearing on and one is
3 what we've been talking about and that is the cost
4 allocation issue on who pays and that's something
5 that I think we have a lot of learning to do. We're
6 going to see just how this develops and we're going
7 to see what the impacts are and we're going to get
8 together when the stakeholders are going to work it
9 out in terms of just how to proceed in terms of the
10 most proper allocation as we normally do in
11 proceedings.

12 But the other --

13 COMMISSIONER FORD: It seems --

14 MR. HEMPHILL: -- the other issue -- I'm sorry.

15 COMMISSIONER FORD: I was going to say, it
16 seems as if you're trying to reinvent the wheel. You
17 said it was Iowa lead the way. What are the best
18 practices that we're gathering from them? Are we
19 looking at best practices in other states?
20 California has electric vehicles. I don't think we
21 have to start at square one. We can simply look at
22 those best practices in the other states and move

1 from there.

2 MR. HEMPHILL: I'd agree with that to the
3 extent that they are in front of us and they have
4 dealt with --

5 COMMISSIONER ELLIOTT: Just one point on that.
6 I mean, I think as Scott -- I think you pointed out
7 that in this room, I think there's a consensus of
8 opinion in terms of going forward on this EV issue.
9 But to the point of, you know, taking the importance
10 to socialize all the costs of the upgrades, you're
11 going to find that there is -- it's going to raise
12 significant political interests in engaging on these
13 issues that may not be represented in this room and
14 that's 90 percent of customers that aren't going to
15 have EVs in their driveways that aren't particularly
16 interested in seeing their electricity rates go up to
17 serve the needs of this small percentage that have
18 made that choice and I think those -- I mean, from a
19 regulatory perspective, I can't think of any other
20 issue that's going to be more key that's before this
21 Commission.

22 MR. HEMPHILL: Can we do a second round?

1 COMMISSIONER ELLIOTT: Yes.

2 MR. HEMPHILL: That's where the cost causation,
3 you know, comes in and that focus comes in and the
4 second is that -- properly incentivize that is going
5 to be needed with the development of this --

6 COMMISSIONER ELLIOTT: To minimize the impact.

7 MR. HEMPHILL: -- to minimize these impacts as
8 my colleague, Dan, talked about and that is -- when
9 you get into the proper way to parse it in terms of,
10 you know, on a time-of-day basis.

11 MS. WILLIAMS: Maybe if I can chime in and I
12 think I'll follow up on the point that you made. I
13 think that that one piece of good news -- what you
14 said is to incentivize behavior, the good news is
15 with the competitive market, you can look to a
16 variety of retail entities to provide a myriad of
17 products that will do just that and provide a whole
18 host of other benefits as well.

19 So I think in -- to answer a couple of
20 your questions, Commissioners, one of the things that
21 we should move forward and leverage what other states
22 have said, but also we've talked about these costs

1 and I think, quite frankly, we're not all sure
2 exactly what these cost are, so we don't want to
3 presuppose a solution until we figure out exactly
4 what all the components of the inclusion are.

5 I think to your point, Commissioner,
6 perhaps that's why a stakeholder process where we
7 figure out what do we all mean by "these costs" and
8 then we determine the best way to socialize them or
9 not, keeping in mind some of the other legislative
10 mandates and actions that this Commission has in
11 front of it, including, you know, maintaining a
12 competitive retail market to support what the
13 consumers' ultimate behaviors desire to be.

14 So I think there are a variety of
15 things. But most importantly, I agree we need to
16 proceed and have some foot on the accelerator, if you
17 will, but it also has been without a presupposition
18 as to that -- to the means to the end.

19 CHAIRMAN SCOTT: I think that gets back to
20 Mr. Emalfarb's point, if I might, about the different
21 business models, they can exist and the different
22 combinations of public and private solutions and

1 different ways to structure that. So I agree with
2 the idea of doing this as an exercise makes a lot of
3 sense from the Commission's standpoint.

4 MR. EMALFARB: I think that Lucy Davis came up
5 with a study -- and I think as Commissioner Ford
6 mentioned, you don't want to reinvent the wheel.

7 CHAIRMAN SCOTT: Right.

8 MR. EMALFARB: You're going to get your wish,
9 you're going to get a smart consumer out of this
10 because when you drive electric, you got to -- you
11 have to understand these things because they're
12 forced upon you. So I think you are going to get the
13 smart grid and the consumer choice and the right kind
14 of behaviors that Mr. Hemphill was mentioning from
15 the consumer with the right kind of incentives and
16 provide the right kind of sustainable investments and
17 environmental benefits and energy dependence.

18 So this is -- this is the real win-win
19 situation, if we can do it right, because it's not
20 going to be easy, it's not going to be without
21 mistakes, we are going to have to learn from the
22 experience. But so far, there's been no

1 socialization of costs because our organization has
2 put everything out on the private sector. We've
3 built the energy with private response. We've got
4 demand response in there because we want this to be
5 successful and it's coming out of Silicon Valley with
6 cell phone technology and the Internet and the things
7 that provide us the ability to do things today.
8 Again, the perfect storm of timing. The convergence
9 of opportunity that provides this state, you know,
10 where the Internet was created, despite Al Gore's
11 claims, Motorola, you know, telecommunications. We
12 have telephones -- charging stations, the Silicon
13 Valley ingenuity that they put here and the policy of
14 this state, that's really what the difference comes
15 in.

16 Commissioner Ford, I want you to know
17 that we believe -- and I think this is going to
18 happen -- every neighborhood in every city, big,
19 small or rural, urban, will, I believe, be able to
20 diversify and provide -- we have two forms of energy
21 in our charging stations that we refer, Level 1 and
22 Level 2. We don't know what the answer is.

1 Level 1 is sufficient charging. From
2 our experiences, most of those that drive electric
3 cars Level 1 is pretty good, you know, in the evening
4 when most of the charging is supposed to go.

5 Level 2 is there to kind of help you
6 when you're not there.

7 And Level 3 is the emergency channel
8 that makes you feel good that you can actually get
9 something done when you do what I do, run out of
10 energy everywhere.

11 But besides that, the cost of the
12 vehicle is going to come down, the cost of batteries
13 is going to come down when this scales up and
14 vehicles are all different sizes. Today, we leave
15 Level 1 in the charging station for electric
16 motorcycles and for people that can afford large cars
17 especially in urban environments.

18 So we want this to be a widespread
19 experience, an affordable experience and something
20 that's going to be justified and provide a return.

21 CHAIRMAN SCOTT: We haven't heard from you,
22 MidAmerican.

1 MS. KUTSUNIS: I would like to make a couple
2 comments about cost causation and socializing the
3 costs.

4 One of the things that we've discussed
5 and identified and certainly haven't solved, but have
6 identified, are some issues about treating these
7 customers differently than other customers we have
8 found on the gas side.

9 For example, in some gas-constrained
10 areas that we have some situations where, depending
11 on what kind of upgrades are needed, the first guy
12 through the door might be fine because there's room
13 for him, the next one through the door gets stuck
14 with lots of costs or vice versa, one of the first
15 ones will pay for the significant upgrades and then
16 there's room for the next one, and so we recognize
17 that that's an issue.

18 And so I think that is something that
19 needs to be taken into consideration and perhaps the
20 tabletop exercises or stakeholder meetings, I think,
21 might be a way to get additional dialogue on that.

22 MR. KOZAK: I'll jump in with a comment,

1 Mr. Chairman, Commissioners.

2 You know, in our comments -- back to
3 the question of what can the Commission do and in our
4 comments we felt like, you know, we said we felt like
5 the current regulatory paradigm we can do what we
6 need to do in that paradigm. So, you know -- you
7 know, a tabletop exercise of sorts would challenge us
8 on that, it would challenge that question and maybe
9 sift out some things that might -- that maybe we
10 didn't see or not. It's kind of a test and I think
11 that's worth thinking about and pursuing.

12 Something that Commissioner Ford
13 mentioned a minute ago is about the affordability of
14 vehicles and the automobile manufacturers and the
15 House Bill that was passed, 29.02, having that -- and
16 I think very wisely -- that automobile manufacturers
17 are on that group. I think we need to hear from
18 them. We need to start working with them. You know,
19 some of the obstacles that we have to do with the
20 marketing of the vehicles and communicating with the
21 people who have the cars and getting that data set
22 back into the distribution network, whatever it's

1 going to be, and so we have to have that data, a way
2 of accumulating that data. So, again, that's another
3 thing that an exercise could sort out. You know, we
4 don't know what's going to be that number. You can
5 see how that scenario may play itself out.

6 So -- and we also heard -- and I have
7 to say that many -- a lot of people have talked about
8 smart grid. This is supposed to be a plug-in
9 electric vehicle here, but plug-in electric vehicles
10 is the smart grid and a lot of people sometimes have
11 a tough time in -- out in the communities
12 understanding what that is; but that's what this is,
13 that's part of it and it's important to point out.

14 COMMISSIONER COLGAN: Well, what people don't
15 know about all of this is a lot and so my question
16 is, you know, who's doing the education? What kind
17 of education campaign needs to be mounted and whose
18 responsibility is it to make sure people know about
19 these things and start to have good practices as this
20 whole thing starts to unfold?

21 COMMISSIONER ELLIOTT: One of the things I was
22 going to comment on is it's the utilities' smart grid

1 perspective, the automobile manufacturers don't care,
2 I think consumers don't either. You give me a car
3 with a plug, I'm going to take it home and plug it
4 in. If it doesn't work as it's supposed to, and I
5 have very little mileage range because it didn't
6 fully charge, then this thing is going to go the way
7 that the electric car has gone twice before.

8 So the issue about the smart grid --
9 and it's a key component certainly from the
10 utilities' perspective -- but I think until we have
11 the automobile industry helping pull that demand from
12 the consumers with regard to the smart grid, I think
13 that's some of the things that we're missing. If you
14 want to have a fulfilling experience with the
15 electric vehicle, then ask your utility where is the
16 smart grid and where are my real-time prices in order
17 to enable functionality of the vehicle. So
18 coordination and education, I think, is important.

19 COMMISSIONER O'CONNELL-DIAZ: And I think
20 through and through, I think every comment that I
21 fixed my eyes on was the theme of consumer education
22 and be -- just like Commissioner Elliott just said,

1 you know, not having a good experience because
2 they -- not that this would happen; but, you know,
3 they don't know the pricing points like -- they'd
4 charge their car at 3:00 o'clock when it's 95 degrees
5 out and then they're bill at the end of the month is
6 huge. Unless there is an interface with the utility,
7 the car manufacturer -- and as I was reading I was
8 like, Okay, who is going to do all this? How is this
9 going to happen? Is there just going to be a big
10 umbrella of knowledge that will come down and
11 everyone will be very bright and understand? No.

12 This is what -- everybody in this
13 room -- and, I mean, I'm thinking that the council
14 will be a very good place to bring the other
15 leadership that really needs -- we all need to be in
16 the same realm. And maybe, for instance, the car
17 dealer, they get licenses, right, so if they sell an
18 EV, they are required to, you know, have this
19 education process that the person buying that car has
20 to -- you know, kind of like a driver's ed. And, you
21 know, it's not probably a one-day event; but it's an
22 ongoing educational -- but then the utility has to

1 have the people in the background that have project
2 and already have it -- you know, the booklets and the
3 instructional manual, so it's a multi-faced task that
4 we have and it's something we haven't done well, nor
5 have we been called upon to do it.

6 COMMISSIONER ELLIOTT: You know, that's part of
7 the problem. I think the interesting thing in terms
8 of tabletop is that these things are for sale. You
9 can go out and buy them today and so the question,
10 you know, whether a consumer demand takes off, it's
11 just the fundamental underpinnings of what has to
12 happen in order to make this an environmentally
13 reliable source of transportation, I think is way
14 short of where we are in terms of marketing these
15 automobiles.

16 MR. KOZAK: That's one of the things that we're
17 doing as a company, obviously, is we're
18 participating -- we have a Chevy Volt as well, Scott
19 and I have both driven it. We've had the Mitsubishi
20 on property and we're participating with programs to
21 learn about the Volt and how it works and how these
22 vehicles operate. And really to answer your

1 question -- so when people call in and they ask the
2 utility, What do I need to do? What is this going to
3 cost? We answer all those questions, Get the Web
4 site out there up and running to provide that
5 education to our customers. There are interesting
6 things --

7 COMMISSIONER ELLIOTT: Are we fielding these
8 calls? I mean, the situation that comes to mind is
9 anyone at the dealership telling the customer to talk
10 to their utility? I mean, is that --

11 MR. KOZAK: We are working closely with the
12 dealerships to hand out brochures and trying to get
13 the dealerships to say when this guy or person or
14 individual buys an electric vehicle, that they should
15 call the utility company prior to taking possession
16 of that vehicle so we can do a service assessment and
17 find out if there are any additional costs required.

18 COMMISSIONER COLGAN: Well, the challenge, to
19 me, seems to be an educational challenge and -- so
20 you can put all the information out there you want.
21 But if you don't put it out there in a curriculum and
22 a format that people could go through it and pick up

1 on it, it seems to me like maybe universities or
2 curriculum development people need to be, at some
3 point, involved here because this is not necessarily
4 the easiest stuff to understand.

5 I mean, it takes a while to get your
6 mind around what is -- and how these issues interact
7 with each other and if we want to have a good,
8 educated consumer base out there, I don't know, maybe
9 we need to involve some university people and --

10 COMMISSIONER O'CONNELL-DIAZ: I think -- jump
11 on board --

12 COMMISSIONER FORD: I think you need schools.
13 Before you go to the universities, let's go to the
14 schools because with this social media, I think that
15 we would get more involvement and then the children
16 will teach the parents how to do it because that's
17 really what goes on in situations like this. You
18 have -- a child will give you more information than
19 these -- the universities, has been my --

20 MS. WILLIAMS: I will agree with the overall
21 tenet that, you know, customer education will, of
22 course, be an important part as we move forward with

1 this.

2 Again, I think some good news is there
3 are these cars on the road today, so whether they
4 have the best education or not, these people are
5 still buying them. And, respectfully, I would look
6 again as a competitive entity to have myself have
7 that onerous -- and not have any costs socialization
8 with the utility providing information to my
9 potential customers about the best way for them to
10 get those products. It seems that there's an
11 inherent presupposition that with this will come, and
12 they exists today, real-time pricing opportunities at
13 the utilities; but they're out in there in the
14 competitive markets, too.

15 We've talked about other states and I
16 can assure you as a member company that participates
17 in a variety of states, those retail offerings are
18 out there and so the dealership to the extent that
19 there needs to be education, we need to be mindful,
20 again, as how we can use this is another anticipated
21 avenue to further promote competition of the electric
22 that is delivered here and not foreclose those to

1 utilities.

2 And, again, when we talk about cost
3 socialization, we shouldn't, I don't believe,
4 presuppose that customer education costs necessarily
5 need to be borne -- need to be handled by the utility
6 who does -- their core competency is quite well, but
7 there are EV companies and other entities out there
8 who this is their core competency. So I think when
9 we talk about tasks to discuss, that needs to be one
10 of them as well.

11 MR. EMALFARB: I think the -- Northwestern has
12 come out with this deployment tour, the U.S.
13 Department of Transportation, which helps develop an
14 understanding for communities themselves and for
15 large people like Walgreens and other groups that
16 we've been working with, you know, going back and
17 forth as an industry and so on.

18 I think that what the cars are going
19 to do is actually create a better understanding, not
20 only as a car and its utility prices, but energy
21 efficiency within the buildings themselves, the
22 policies that you've set into place and the mobile

1 portfolio standards that are out there as long as
2 they get out of the farms and get more into
3 distributed generation in people's backyards so you
4 can, see, feel and touch these things other than, you
5 know, through renewable energy credits coming over a
6 wire, you know, and I think when they do that the
7 country is going to come together, and particularly
8 within Illinois itself, and develop those educational
9 tools that -- Illinois states working with renewable
10 energy, Eastern Illinois University, we're speaking
11 with already and, basically, the infrastructure
12 business, and the electric retail sellers and other
13 people in the free market is getting the message out
14 there because it's an important message to make -- to
15 connect the dots and it's not really -- it's taken, I
16 know myself, years to try to have an understanding.

17 Commissioner Elliott, we see you at
18 the NARUC conferences. The first time I was there,
19 it was like a foreign language to us that was going
20 on and trying to understand how it's going through
21 with the help of ComEd and DECO and a lot of the
22 people putting the pieces together; but I think it's

1 going to come and I think the Commission serves the
2 role to guide that, to develop that, you know, of
3 course, the task force -- but then we have regional
4 planning communities and CMAQ because you're taking
5 oil and you're replacing it with electrification.

6 So the industry we're looking at here
7 is transportation electrification. We're not going
8 to follow highway sprawl, we're going to file
9 sustainable grids. So -- we're working with South
10 Suburban Mayors and Managers Association up and down
11 the Metra lines because that's where the grids are.
12 The grids aren't in the middle of the fields, so
13 we're looking at the activities we think from a
14 planning standpoint where the light rail systems can
15 cause sprawl when they disappear, all that will come
16 back in the next 20 years or 30 years to provide a
17 much more sustainable community.

18 So we think planning is going to
19 follow the grid.

20 COMMISSIONER FORD: And I'll like to say that I
21 agree with you that it should not be borne by the
22 utility, but it should be a collaborative effort and

1 the reason I said "schools," each school, the
2 children have to take driver's education and that
3 could certainly be a conduit to go in there
4 because -- and they would understand better about how
5 to go about getting these cars and knowing what to do
6 once they get home.

7 COMMISSIONER COLGAN: But what I'm talking
8 about is the curriculum that the driver's education
9 educators actually use so that it's a curriculum
10 of --

11 COMMISSIONER FORD: Standardized.

12 COMMISSIONER COLGAN: -- this is what you need
13 to know first and then it branches out from there
14 into all these different aspects of what the issues
15 are. That might be a good place for that to happen,
16 but I think we need to -- you know, I don't know, is
17 that something that private industry should be
18 developing or is that something that could be
19 developed by the state university or are cooperative
20 extension services supposed to have the specialty of
21 educating people outside the walls of the university?
22 And it's a big issue. Where should that -- where

1 should that happen or is everybody doing their own
2 little piece of it and it gets conglomerated together
3 into a meaningful curriculum?

4 COMMISSIONER ELLIOTT: Everybody is confused
5 because there are different perspectives on what's
6 what.

7 Well, I just want to mention that I --
8 you know, I'm happy as an advocate of dynamic pricing
9 as an economist to hear from all of the parties with
10 regard to electric vehicles about utilizing dynamic
11 pricing to take the best advantages, both from an
12 environmental and an economic perspective. My
13 concern is that we isolate this application from a
14 rates perspective that we -- I don't want to see this
15 as a separate application submetered -- treated
16 differently than any other electrical application on
17 the system. I think we've got an opportunity before
18 us with the electric vehicle application to teach
19 about pricing, to utilize smart meters and metering,
20 to use this application to explore what those things
21 have to offer for all electrical end use and I think
22 to the degree that we've struggled, and I think a lot

1 of parties have said that across the nation,
2 regulators are reluctant to embrace dynamic pricing
3 because there's not much demand for it.

4 You know, to the extent that we have
5 parties like yourselves and others that can be strong
6 advocates for the prices, whether it's opt in,
7 whether it's EV or whatever. But as long as it's not
8 just isolated to that application, it isn't
9 submetered and treated as a separate rate just for
10 the EV, then I think we're going to go a long way to
11 solving a lot of problems that we've experienced over
12 the last year with reliability, with energy
13 efficiency, et cetera.

14 So to the extent that, you know, you
15 can continue to bang the drum for dynamic pricing and
16 smart metering to make that through, then I think
17 we're going a long way to where we should go.

18 COMMISSIONER COLGAN: Well, I think this issue
19 is kind of crosscutting in a lot of ways --

20 COMMISSIONER ELLIOTT: Sure.

21 COMMISSIONER COLGAN: -- I think a lot of
22 things start to come together on this issue.

1 But, Mr. Emalfarb, is that how you
2 say --

3 MR. EMALFARB: Yes.

4 COMMISSIONER COLGAN: In your testimony, you
5 said, We request that the Commission clearly define a
6 timetable and pathway for the utilities to enable
7 subtractive billing is aligned with the development
8 of a submetering protocol.

9 Can you elaborate on that a little
10 bit, the subtractive billing issue.

11 MR. EMALFARB: Well, we might be taking it from
12 one of policy guys in California in the California
13 order, so I would probably defer maybe to our
14 retail --

15 COMMISSIONER ELLIOTT: Is it net metering?

16 MS. WILLIAMS: While I can't speak specifically
17 to what he was talking about but what I can tell you
18 is that while there may be opportunities, I agree
19 with your sentiment, that we've seen in other
20 emerging markets you can begin to create an EV eco
21 system and not have separate metering requirements
22 through a variety of -- whether it's EV codes as we

1 referred to them. Setting up relationships with the
2 supplier or other things. I don't -- I don't believe
3 that submetering is a prerequisite and, in fact, I
4 believe could hinder, at least initially, the further
5 deployment of electric vehicles.

6 COMMISSIONER COLGAN: So is subtracted billing
7 kind of an outflow from submetering? Is that what
8 you're saying?

9 MS. WILLIAMS: May I ask you to clarify exactly
10 what you mean by --

11 COMMISSIONER COLGAN: That's what I'm asking --

12 MR. EMALFARB: I think what I was referring to
13 was the energy efficiency policies in the state
14 require us to lower the load within buildings and
15 when you have transportation and you gather them up,
16 you are going to increase the loads and, therefore,
17 what the metering would do, in essence, with the
18 data, we would be able to keep track of the data as
19 it relates to transportation versus what happens in
20 the buildings themselves.

21 So subtractive is to really find the
22 true usage of the energy from the building itself

1 from transportation mobility so we don't mess up the
2 energy policies that the Commission and the utilities
3 worked so hard to gather. That's what I think we
4 were trying to --

5 COMMISSIONER COLGAN: That's how you come up
6 with the chart you showed me?

7 MR. EMALFARB: I think so. It sounds, you
8 know...

9 COMMISSIONER O'CONNELL-DIAZ: Because of the
10 rise in the energy usage, it won't count against --

11 MR. EMALFARB: Right. You're trying to --
12 you're trying to account --

13 COMMISSIONER O'CONNELL-DIAZ: -- electric
14 vehicle use versus trying to get your energy down --

15 MR. EMALFARB: Exactly.

16 COMMISSIONER O'CONNELL-DIAZ: Got you.

17 CHAIRMAN SCOTT: So it's more from a data
18 collection than from a pricing --

19 MR. EMALFARB: Right. It's more from a data
20 collection. That's why it gets a little confusing,
21 you know, back and forth. And believe me, I'm not an
22 expert. I defer to the retail association's expert

1 and yourselves. As pricing, we're kind of a novice
2 and it's an uncomfortable or comfortable position, I
3 don't know, depending on what question it is, sitting
4 in between everybody and try to answer them because
5 we're learning this as we're going along, too.

6 CHAIRMAN SCOTT: We've got a couple minutes
7 left for the time we allotted for this panel and
8 maybe what I'll do is -- if it's okay -- if there are
9 other questions, we'll take those; but, otherwise,
10 maybe just -- if there's some glaring issue we missed
11 in the last hour that you want to touch on, you know,
12 this would be a good time to do it before we take a
13 quick break.

14 MS. KUTSUNIS: I guess I'd like to just point
15 out a couple goals that we've had as we've talked
16 internally and those are for utilities to avoid
17 erecting barriers for adoption of PEHV. That's one
18 of our big concerns. We don't want to have any
19 unintended consequences that we artificially erect
20 barriers and try to keep it as simple as we can for
21 customers. We think that will help the adoption
22 rate.

1 So when you get into some very
2 detailed technical discussions here, we are trying to
3 take that step back and make sure that in the final
4 analysis, we do keep in mind making it easy for our
5 customers.

6 COMMISSIONER ELLIOTT: You raised an excellent
7 point earlier so what I was trying to get to is that
8 marginal impact of that last customer, you know, if
9 the next guy with an EV -- now you have to build a
10 new transmission substation.

11 CHAIRMAN SCOTT: I thought you were going to
12 ask about the two doctors with the Testlas and their
13 side by side driveways.

14 COMMISSIONER ELLIOTT: Well, that's the same
15 thing. It's a new transformer, but then -- you put
16 in a new transformer and it goes down the line and
17 you've got to get a new transmission substation. Who
18 pays for that? Is it the guy -- it's like the two
19 doctors with the Testlas that are --

20 CHAIRMAN SCOTT: No, that's a good question.
21 Yeah, absolutely.

22 COMMISSIONER ELLIOTT: That's a sizeable chunk

1 of change in the transmission substation --
2 distribution substation.

3 CHAIRMAN SCOTT: Anybody else?

4 MR KOZAK: I was just going to make a couple
5 comments, that -- people always get -- when you drive
6 around electric vehicles, you get these questions all
7 the time. So, you know, some of the things we've
8 done is put together some information just about what
9 does it cost to charge up -- you mentioned the Chevy
10 Volt, so we can use that.

11 If you assume 12 cents a kilowatt
12 hour, it costs \$1.92 to charge that vehicle up and
13 that equates to about 5 cents a mile running on
14 electricity versus a car that gets about 20 to 25
15 miles a gallon, between 17 and 18 cents a mile. So
16 you have to do all these comparisons and what does
17 that add up to over a year? You know, if a car gets
18 25 miles to the gallon, on average, you're going to
19 save about \$1,200 a year driving an electric vehicle,
20 assuming you drive 10,000 miles a year.

21 So these are the kinds of numbers that
22 you mentioned when you started talking about \$40,000

1 for a car and you're saving \$1,000 per year, what was
2 the premium of that over another car? And my whole
3 point is there's a lot of information that's going to
4 come to see this market development and we don't know
5 the answers. We don't know if there's going to be
6 clusters or if there's not going to be clusters, you
7 know, and to have some sort of communication
8 mechanism back to the Commission to let you know
9 what's going on in our system is definitely a good
10 idea so we can make sure we don't miss anything going
11 forward.

12 CHAIRMAN SCOTT: Let me ask one quick question.
13 It was about something that was raised earlier when
14 you talk about the clusters and this issue about
15 being notified ahead of time before.

16 What do you get now? I mean, there
17 are -- you know, in Elkhart, Iowa, for goodness'
18 sake, there are 13 charging stations there in the
19 town. I mean, what does a utility get in terms of
20 information right now?

21 MR. EMALFARB: Nothing.

22 CHAIRMAN SCOTT: That was my guess.

1 MR. EMALFARB: Well, that's not exactly true.
2 In our infrastructure and technology, we thought
3 about this and we've been working with Mr. Gabel. We
4 have not told Mr. Hemphill he's correct, but Mr.
5 Gable is aware where all the stations are, more or
6 less, not exactly; but there needs to be -- we agree
7 there needs to be a process 100 percent. The EV
8 Infrastructure Act that -- specifically says whether
9 it's the Secretary of State or the Building
10 Department Authority, you know, that's something
11 maybe the Commission or the Task Force can figure
12 that out whatever the best way is -- notification is
13 very key to this whole process.

14 CHAIRMAN SCOTT: There are a lot place in this
15 state -- a lot of the new service territory where you
16 don't have -- you don't have the building
17 departments, the zoning -- you know, there's no
18 zoning in a substantial number of counties in the
19 state. So I mean, trying to figure out the right way
20 to do that -- here it's, you know, there are avenues
21 where it makes sense and it's easier there are other
22 places where it's not, so having that system seems to

1 make sense.

2 MR. HEMPHILL: Very quickly, I ask Mr. Gabel to
3 say whether it's more or less.

4 MR. GABEL: I think another way of maybe
5 restating what Hal- -- Mr. Emalfarb said is, is right
6 now, we're relying on the relationships with the
7 infrastructure providers and the automotive
8 manufacturers to provide us that information as they
9 get it. What we need is something a little more
10 concrete, a little something more direct that says
11 you need to provide the utility this information when
12 you are putting in the charger.

13 MS. WILLIAMS: And we should just be mindful of
14 how much information we need to provide the utility
15 for what purposes, right, to reiterate that, perhaps
16 for distribution purposes. That makes sense. But,
17 again, to allow the competitive market to flourish,
18 it doesn't essentially mean that they need to be on
19 the utility provided time review pricing.

20 MR. GABEL: All I want to do is check the
21 transformer.

22 CHAIRMAN SCOTT: Thank you very much. We

1 really appreciate it.

2 We're going to take about 5 or 10
3 minutes and then we'll switch out all the cards and
4 bring the second panel up.

5 (Recess taken.)

6 CHAIRMAN SCOTT: All right. Thank you very
7 much for returning here. We've got another panel
8 that I'll do it the same way that we did it before,
9 we'll just ask the panel to briefly introduce
10 yourselves and what organization you represent and
11 then we'll kind of jump into the discussion again
12 like we did before. So start over here to my left

13 MS. BINGHAM: I'm Samantha Bingham, with the
14 City of Chicago's Department of Environment. I'm an
15 environmental policy analyst working on our air
16 quality improvement program including the Chicago
17 area which includes the City and State's grant for
18 public EV charging stations.

19 MR. JOLLY: My name is Ronald Jolly. I'm a
20 senior counsel with the City of Chicago's Law
21 Department.

22 MS. McKIBBEN: I'm Anne McKibben with CNT

1 Energy and I-Go.

2 MS. MUNSCH: Kristin Munsch. I'm an attorney
3 with the Citizens Utility Board.

4 MS. WEIL: Madeline Weil, policy advocate with
5 the Environmental Law and Policy Center.

6 MR. KELTER: Rob Kelter. I'm an attorney with
7 the ELPC.

8 MS. STANFIELD: Becky Stanfield with the
9 Natural Resources Defense Council.

10 MR. MILBERG: Josh Milberg. I'm an independent
11 consultant working on behalf of the Environmental
12 Defense Fund.

13 MR. CUTLER: Jordan Cutler. I'm the director
14 of program development at the Illinois Science of
15 Technology Coalition.

16 CHAIRMAN SCOTT: Very good. Obviously, we're
17 going to jump back into a couple discussions and
18 start the discussion like we did the last time and so
19 maybe start with that whole issue of, you know, what
20 it is that the Commission should do. We heard a
21 couple of couple of good ideas about going forward,
22 but just in terms of this threshold issue of what

1 should we say in terms of policy, how we should
2 characterize this and how quickly we should do that
3 and what kind of form that should take.

4 So anybody who wants to start in that
5 discussion, feel free.

6 MS. MUNSCH: I guess this is -- I'll start and
7 I'm part of that -- I think I'll start.

8 As I looked at the other comments, I
9 think CUB is one of the people who, I guess, was
10 asking a lot of questions and part of the first
11 question we asked was the determination on the
12 competitive service and why that was being suggested
13 right now prior to, I think, understanding more about
14 what the regular -- existing regulatory framework,
15 how that touches the questions involved.

16 When we started to walk through our
17 comment, we ran into a lot of questions such as, If
18 I'm on a charging station -- Munsch's charging
19 station and I have 50 of them sitting at downtown
20 Chicago and my regulatory goal is to send the right
21 price signals to EV that charge during peak times is
22 not good, charging during off peak is good, well, how

1 do I accomplish that? What's the point of
2 intersection? Because I, as the charging station
3 owner, are not necessarily going to pass along those
4 rates to the customers because I may not have a meter
5 that can do that.

6 And so when we began to walk through
7 the practicalities of where the Commission's
8 jurisdiction -- where the Commission's public policy
9 goals start to hit the owners, start to hit the
10 utilities, start to hit the dealers, I think a group
11 we certainly agree is missing from the table, start
12 to hit some of the manufacturers and groups like
13 CNT's I-GO Program with car sharing, we began to
14 think maybe instead of making an affirmative
15 declaration right now. What's more important for the
16 Commission to do is to do, I think, some of the data
17 collection gathering that Commissioner O'Connell-Diaz
18 was referring to and that's our understanding of what
19 our public policy goals are, who the audiences we're
20 trying to reach and what's the behavior we're trying
21 to encourage?

22 And I think, to Commissioner Elliott's

1 point, understanding the existing policies we have.
2 There are interconnection standards that address some
3 of this cost causation issue, if upgrades are
4 necessary. The question is, as a public policy
5 issue, which I think we support EDF/NRDC, those
6 comments, as well as the comments from the people to
7 my right, is there a public policy issue that CUB
8 agrees with in promoting the use of electric vehicles
9 and how do we do that and that's a question that's
10 going to take some time, I think.

11 And I think one last thing is
12 understanding how the changes in technology over the
13 next couple years will do that if smart meters are
14 available to contract granular information, could
15 maybe potentially one day follow my car to my house
16 to downtown and interact, there's a chip that now
17 tells me that I can get billed wherever I go? That's
18 a very different paradigm, potentially, for what
19 exists right now and understanding those questions
20 over the next year or so, while we have some time to
21 do that, I think will create a clear direction that
22 satisfies the concerns of developers about where the

1 market is going but avoids, perhaps, a -- I would say
2 sort of a premature, perhaps, decision on the range
3 of services and what the ICC's rule should be over
4 time.

5 MR. JOLLY: Ron Jolly on behalf of the City of
6 Chicago.

7 I guess I will respond to a couple
8 suggestions that were made in the initial panel, the
9 idea of a resolution, I'm not certain what the ICC's
10 authority is there and whether they're binding and
11 does that provide sufficient certainty to persons who
12 might want to get into this market and develop
13 charging stations that, I don't know.

14 The other idea of legislation,
15 obviously it provides a lot more certainty, but it's
16 a more time-consuming process in which you don't know
17 what the outcome might be, whether there's something
18 in between, an ICC docket or something to that effect
19 where -- whereby the ICC might declare, you know, the
20 provision of charging stations as a competitive
21 process, that might be something in between but those
22 are -- with respect to the two ideas that were thrown

1 out, that was my -- those were my reactions.

2 MR. MILBERG: So -- Josh Milberg on behalf of
3 EDF and thank you, Chairman and Commissioners, for
4 allowing us to speak on this.

5 I think from my perspective and I
6 wouldn't want to begin to argue with Mr. Jolly on
7 those points; but I think that right now is a
8 leadership moment. It's an opportunity for the
9 Commission to come out ahead of this. Commissioner
10 Ford, you talked about not reinventing the wheel and
11 I totally agree, but just because other states have
12 come up with ideas and have made legislation or made
13 rules, that doesn't mean that they got it right. And
14 I think what's important here is to look at what
15 other states have done, but also look at what makes
16 Illinois unique and I think what the Commission has
17 an opportunity to do here is to really convene the
18 key stakeholders and I think that today is an
19 excellent example. You've got just about everybody
20 that I could think of that you would want to have
21 sitting around the table talking about this -- come
22 in and talk about this and I think using that power

1 of -- that convening power, that facilitation of
2 power is extraordinarily important and
3 extraordinarily valuable as we continue to make
4 Illinois the leader in electric vehicles.

5 MS. STANFIELD: I guess I'll chime in. I think
6 the -- I agree with a lot of what Kristin said. I
7 think a broad statement that the Commission is not
8 going to have a role in regulating this market is
9 probably premature and we need to distinguish between
10 different business models. So if the business model
11 for the charging infrastructure is one that is
12 procuring power at wholesale, I think that's a very
13 different scenario than -- business model where the
14 charging station is essentially just a customer of
15 the utilities. You probably want to take a different
16 regulatory approach in those two scenarios and the
17 Commission needs to be careful to preserve their
18 ability to fulfill your core mission of maintaining
19 reliability and environmental performance, so you
20 need to be able to ensure that notification is
21 happening because that is part of the core mission of
22 ensuring reliability. You need to -- we believe that

1 time-variant prices should be the default for EV
2 owners and if you -- you know, through the process,
3 if you agree with that, then you need to preserve
4 your ability to require that.

5 So while we agree that some indication
6 now that charging infrastructure that is really just
7 a customer of the utility and not procuring wholesale
8 power wouldn't be regulated as an electric utility,
9 that would be probably appropriate to say now; but,
10 you know, strictly saying something so broad that
11 down the road when we know more, you wouldn't be able
12 to act to fulfill your core mission on both
13 reliability and environmental performance.

14 MR. KELTER: It does seem, though, that people
15 are putting in charging stations now and nobody is
16 saying or doing anything about them, so I'm a little
17 perplexed -- I'm not sure it's clear exactly where we
18 should go. I think by not doing anything -- nobody
19 has challenged these charging stations and I think by
20 not taking any action, we're sort of essentially
21 saying that we're not going to regulate them, aren't
22 we?

1 I mean, I'm not sure what the
2 Commission's thinking is, but that seems to be what's
3 happening and the more that -- the more charging
4 stations that get out there that are privately owned,
5 the tougher I think it would be to go back and after
6 these stations are in operation for six months or a
7 year or two years to then say, Hey, we know we didn't
8 do anything when you put these in, but now we've
9 decided that these should be regulated as areas or
10 whatever you might do at that point.

11 So it's sort of funny. I was thinking
12 about it this morning, you know, the first question
13 is, Well, what should we do and how should we do it?
14 I think the Commission has the authority to take this
15 action on its own and I think that the Commission
16 should probably do that. If it's going to do it, now
17 would be the time before we get any further down the
18 road.

19 And one interesting thing that came up
20 today is discussion about the utilities not knowing
21 where charging stations are going in. I think it
22 would make sense that anybody with a Level 2 -- who's

1 putting in a Level 2 charging station should just
2 have to register it. That seems like a pretty simple
3 one. It doesn't have to be a complicated process.
4 Just let's us now where it's going in and
5 unfortunately, the utilities aren't here to answer --
6 or they're not on the panel to answer whether that
7 would satisfy them, but I don't know that it needs to
8 be much more complicated than that.

9 COMMISSIONER COLGAN: Where do you think we get
10 the authority to make the declaration? You said you
11 thought the Commission has the authority to make that
12 determination.

13 MR. KELTER: Well, I think in the past,
14 regulatory bodies have been asked for advisory
15 rulings. You could do it as an advisory ruling or
16 you could just open a docket, some type of proceeding
17 and allow the public to comment. I guess I'm not
18 sure if it would be a rulemaking, but --

19 COMMISSIONER O'CONNELL-DIAZ: But he asked
20 where do we get the authority? So is it --

21 MR. KELTER: Oh, from the Public Utility Act.
22 I think you have broad authority to, you know,

1 address issues like this.

2 COMMISSIONER ELLIOTT: Just going back to your
3 point, can you run through that again. Do you have a
4 electric charter that you have to register or --

5 MR. KELTER: Yeah, they have to register. They
6 have to apply for a license --

7 COMMISSIONER ELLIOTT: -- a backup generator
8 or, you know, freezers or refrigerators or
9 air-conditioning systems. Why is there a need to
10 register this?

11 MR. KELTER: I'm not saying there is. The
12 utilities seem to be saying that there was and if
13 it's deemed that they need to know where those
14 Level 2 charging stations are because they're using
15 electricity at a different level than other
16 appliances, then I don't think it should be that
17 problematic to require somebody installing a Level 2
18 charging station just to file something with the
19 utility saying that we're installing it.

20 COMMISSIONER ELLIOTT: I think it might help,
21 at least for me, in clarifying these that we
22 distinguish between sort of the commercial Level 2

1 charging stations and a Level 2 charging station in
2 someone's home. So if we could distinguish between
3 which ones were registering -- you know, I was
4 thinking in terms of a homeowner who puts in a
5 Level 2 charging, does he need to register with the
6 utility?

7 COMMISSIONER O'CONNELL-DIAZ: I think Ron's got
8 a point.

9 MR. JOLLY: Well, and, I guess, yeah, I was
10 going to follow up on what you said, Commissioner
11 Elliott. If we're talking about people in their
12 homes putting in a Level 2 charging station, it is my
13 understanding and in the City's conversations with
14 ComEd is that one of the problems they have in the
15 City is that people install new appliances, use more
16 electricity and you develop pockets whereby all of a
17 sudden there are reliability issues, which goes to
18 the point that you raised in the first panel,
19 Commissioner O'Connell-Diaz, and going back even
20 further, in 1999 when there were widespread outages
21 in the City. It's my understanding a lot of what had
22 happened was there was a lot of development in

1 particular neighborhoods in the City and ComEd was
2 not doing a very good job of keeping track of where
3 this development was occurring and as a result, you
4 had -- when the system was strained, you had
5 widespread outages.

6 And so you may face a similar
7 situation here if you had a lot of persons in a
8 particular area install these and they put a strain
9 on the system. I'm not certain who these people --
10 who they would register with -- would it be with the
11 utilities? Because currently it's, again, my
12 understanding, ComEd has talked to the City about
13 what processes there are at the City whereby perhaps
14 if somebody goes to the Building Department and says,
15 We're going to install whatever, we're going to
16 expand our home and thereby we're going to increase
17 our usage by 50 percent that -- that ComEd be
18 notified of that, which is all fine and good, but the
19 problem is is not everyone goes to the Building
20 Department to get a license. And so you have a lot
21 of this going on without anybody knowing.

22 COMMISSIONER FORD: But, Mr. Jolly, the

1 charging station that's in 203, the City Building
2 Department does not know about that?

3 MR. JOLLY: That -- I assume they do --

4 COMMISSIONER FORD: That's why I wanted to
5 know --

6 MR. JOLLY: But that's a different situation,
7 that's -- when you're talking about a public -- a
8 public situation, I assume that would have to be
9 licensed and get the proper permits --

10 COMMISSIONER FORD: You need to find out.

11 MR. JOLLY: -- talking about is when somebody
12 is installing something in their own home rule.

13 COMMISSIONER FORD: I would think they would be
14 registered with the City with that parking station.

15 MR. JOLLY: For the parking garage, yes. In
16 that sit- --

17 COMMISSIONER FORD: No, for the charging
18 station.

19 MR. JOLLY: Yes.

20 COMMISSIONER FORD: Mr. -- he's shaking his
21 head that's correct, okay. Thank you. The City
22 knows that that's -- there's a charging station in

1 that garage.

2 MR. JOLLY: Yes.

3 COMMISSIONER O'CONNELL-DIAZ: So what you're

4 saying is there's a potential of -- what could we

5 call them -- bandits that are going to put -- without

6 getting a permit from the City and they're going to

7 put a Level 2 station in at their home or maybe it's

8 an apartment building, and so then there would be no

9 way of knowing -- there would be these kind of

10 phantom --

11 MR. JOLLY: Right. I mean, whether that would

12 be a problem or not, I don't know.

13 COMMISSIONER O'CONNELL-DIAZ: Well, I think the

14 City better get out there and crack down on these

15 people. They need those revenues. We know they need

16 these revenues. I'm not making light of it, but...

17 COMMISSIONER FORD: I am concerned about this.

18 MS. McKIBBEN: Just to get back to the process.

19 I think this is a perfect example of the classical

20 details of how this information needs to be shared or

21 collected as several Commissioners mentioned earlier,

22 that there's a lot of information that we just don't

1 know.

2 These sorts of issues would be very
3 helpful to have ongoing discussions about these, both
4 to identify the issues as they pop up and to start to
5 develop --

6 MS. WEIL: I'd just like to make a point about
7 that as a follow-up to Anne's comment.

8 I sit on a number of the subcommittees
9 of the Michigan Public Service Commission Task Force
10 on electric vehicles and this is something that's
11 been going on up in Michigan for about a year now and
12 there are cars available in Michigan -- they were one
13 of the very early roll-out stage -- Illinois is kind
14 of the second-tier roll-out state -- so they are
15 already doing quite a bit of this work and
16 data-gathering and learning from real-world
17 experience and there are two points that they've
18 discovered so far that I think are relevant to this
19 particular question.

20 One is that on the residential side,
21 there aren't actually that many EV owners that are
22 opting for Level 2 charging, most of them are just

1 happy enough with the Level 1 outlet that's already
2 in their garage. They make a decision not to
3 purchase a Level 2 charging station at the dealer and
4 they say, Well, you know we'll see if I need it later
5 on, I'll see how it works, and they're not coming
6 back in because the Level 1 is just fine.

7 And the other point that I wanted to
8 make -- I'm drawing a blank on, actually.

9 MR. KELTER: And I would add that at NARUC, one
10 of the things that came up on the panel of electric
11 cars is what Chevy and the other manufacturers are
12 finding is that people are not seeing the need to add
13 a Level 2 charging station, that I guess they're
14 calling it range anxiety and once they get over their
15 range anxiety, they're fine charging, you know, with
16 what they've got at home now.

17 MS. STANFIELD: I don't think there's a lot of
18 disagreement that it would be helpful for our
19 utilities to know who's charging where and that it is
20 part of the regulator's responsibility to make sure
21 that enough notification is happening, that we're not
22 going to encounter big reliability problems and I

1 don't -- I think that can be -- is being done through
2 partnerships between the utilities and auto dealers
3 where people are notifying their utilities on a
4 voluntary basis without actually regulating people so
5 that, you know, there's a fine if they put something
6 in their house and they don't call their utility or
7 call the Commission. I think the utility can be
8 charged with creating voluntary systems whereby
9 residents or commercial operations will notify them
10 and they'll get enough information that they can do
11 their job of maintaining reliability.

12 So -- and then as deployment
13 increases, we may find that we need more than that
14 down the road; but at this point, it seems that what
15 we need is a process to ensure that the utilities are
16 creating those partnerships with auto dealers or
17 creating a system to get that information for people
18 who are buying EVs in the secondary market or
19 bringing EVs in from other states and that doesn't
20 necessarily have to be the heavy hand of regulators
21 regulating every -- you know, every resident.

22 COMMISSIONER O'CONNELL-DIAZ: You just made a

1 comment that I just want you to clarify. You said
2 that the utilities have to be making this bridge to
3 the car dealer. I mean, the car dealers are at the
4 trough, too -- excuse me for using that term -- but
5 there's an incumbency on anyone who is involved on
6 this in a money-making operation that they need to be
7 doing their due diligence, if you will, which, you
8 know, I don't regulate car dealers. I mean, maybe
9 that's something that the advisory council can get
10 them to the table, they're not here today; but, you
11 know, I can't order my utility to do that. So, I
12 guess --

13 MS. STANFIELD: You can't order the utility
14 to -- you can't order the auto maker to enter into
15 those partnerships. It's certainly in their interest
16 to do so and it is the obligation of the utility to
17 figure out some way to get the information. So in --
18 you know, in other states, and maybe even here, there
19 are already partnerships between the auto dealers and
20 the utilities where that information exchange is
21 happening. If we find that it's a -- you know, that
22 the utility -- the auto makers are somehow not

1 cooperating, that would be an issue to address down
2 the road, but I don't anticipate a problem.

3 MS. WEIL: And that's actually the other point
4 that I was going to make is that up in Michigan, they
5 did set up that voluntary system whereby dealers
6 would encourage their customers to voluntarily
7 register with the utilities and they weren't sure
8 what response they'd get. It turns out that more
9 than 90 percent of customers are choosing to do that.
10 It really -- you know, they've had a very good
11 response rated and people are perfectly happy to
12 register with the utilities when they install a Level
13 2 charging station.

14 MS. MUNSCH: Well, one thing I didn't say is
15 that this reminds me somewhat the smart grid pilot,
16 which I think we need to understand what people
17 actually do with their cars and not just what they
18 say they're going to do with their cars and how they
19 use it. I think one reason that CUB was excited by
20 the AMI pilot was that it gave us a chance to
21 actually run tests, how people reacted to that rates,
22 what they did with technology and I think the

1 missing -- the question here is what is
2 appropriate -- if we're all saying we all have a
3 public policy interest in this, then the only thing
4 I'd add to that is it can't just be utilities and the
5 auto dealerships that we're thinking about. It has
6 to be the experience of me buying the car and
7 understanding what that dealer is telling me.

8 And I have to someone at CUB, when we
9 were having these discussions said, Well, we'll have
10 somebody there and you pick up the phone and you'll
11 call and you'll get put on a residential real-time
12 rate, which I think we all agree is the best rate for
13 people who own the car and I thought, So I'm just
14 buying a car and now you're telling me I have to go
15 through an extra step to call my utility to get on a
16 rate, you know, forget it. I can see some people
17 going, Already it sounds complicated and it sounds
18 like a problem and I -- you know, before we -- I
19 think if we can figure out a way to incent the
20 utilities, the dealers and others to give us -- to
21 figure out how we can reach and collect that data and
22 that usage, how we can understand what people

1 actually do with their cars, we know how best to
2 understand to craft that, the rate structure and the
3 cost structure along with it.

4 I do see, Commissioner -- to me, maybe
5 I'm just one of those people who --

6 COMMISSIONER O'CONNELL-DIAZ: I think we're
7 adult people and when someone is making a significant
8 purchase like that, you better have figured out what
9 you need to do and what your adult responsibility is
10 and I don't know whether we really do need to
11 spoon-fed people that are purchasing these vehicles
12 that are -- you know, they're different and they --
13 you need to do your homework ahead of time. It's
14 like buying -- I guess it's like buying a new
15 computer and bringing it home and, oh, yeah, thinking
16 that, you know, the guy from the Apple store is going
17 to come and visit your house and take care of you,
18 they're not. You're on your own --

19 MS. MUNSCH: I absolutely agree with that and I
20 think that's why, to me, I was stressing the
21 importance of -- I think, is understanding what
22 customers expect and hear about the cars and who they

1 hear it from and what that message is that's given to
2 them because they are making a significant
3 calculation (sic) and the utilities are concerned
4 that if there's -- you know, I can put two or three
5 of these on my street and I'm that third person who
6 plugs it in and what they told me at the dealership
7 doesn't happen, you know, some of these early stories
8 could be a real problem for all of us interested in
9 having people adopt these cars.

10 COMMISSIONER COLGAN: But I think that the
11 person who is going to go out there and buy the car
12 now is not going to be intimidated by the real-time
13 price --

14 MS. MUNSCH: Hopefully not.

15 COMMISSIONER COLGAN: -- they'll already have
16 that all mapped out. But what my interests -- I have
17 an interest that -- or they can afford to do it, you
18 know, they have the resources to get into that market
19 and they'll figure it out, but what I see there is a
20 huge opportunity to educate people about what
21 real-time pricing is so the -- because when people
22 start to understand the real-time pricing -- we had

1 one of the first panelists start to talk about, Well,
2 the car costs \$41,000, but you're going to save
3 \$1,500 a year if you drive 10,000 or something like
4 that and that's the result of a lot of deeper
5 understanding of things.

6 So that comes back to the issue of
7 public education about what -- all of these issues
8 and how they interact with each other and whose
9 responsibility -- you said several times, I think we
10 just need to do -- well, you know, "we" is kind of a
11 diverse group of people. The first panelists, they
12 wanted us to make a declarative determination that
13 this is a competitive market and that anybody who's
14 providing services and equipment for electric
15 vehicles is not a public utility, but you -- this
16 panel is saying, like, maybe keep your power drive
17 for a while before you make that kind of declaration.

18 So we is a -- there's a really diverse
19 group of people. Whose -- whose responsibility is it
20 to make sure that we're educating people about this
21 whole new world that we're moving?

22 Anybody have comments on that.

1 MR. MILBERG: I do. I think that it's -- I
2 think it's a group of stakeholders. I think we're
3 entering into a real world of gray here and so it's a
4 world of stakeholders, but a world of stakeholders
5 that all have skin in the game.

6 So, Commissioner Elliott, you talked
7 earlier about that electric vehicle dying twice
8 before. Well, I think the difference that you see
9 now from the previous two deaths is before, nobody
10 went on one of their ships -- excuse the reference,
11 but nobody came in and said that this is how we're
12 going to build our strategy going forward. You're
13 seeing car companies now -- Nissan specifically,
14 Chevy is coming out, saying, This is how -- this is
15 the future of our industry, this is the future of our
16 country. They are real skin in the game and as
17 Kristin said, if the third person on the street buys
18 the car and it knocks out the grid and suddenly there
19 are all these issues, that's going to get onto the
20 Internet.

21 I think that the one thing that we're
22 missing here is that we have a really unique

1 opportunity because we've got a group of people that
2 want to be guinea pigs. When the City rolled out the
3 electric vehicle infrastructure program -- and
4 Miss Bingham can speak to this as well -- we received
5 multiple e-mails from people that wanted electric
6 vehicles, had gone out of state to buy electric
7 vehicles, were converting their own cars into
8 electric vehicles, and all wanted to be part -- all
9 wanted to say, How can I share my story? How can I
10 share what I'm experiencing? And now we need to take
11 advantage of those offers because we do have a nice
12 time.

13 I didn't see Hal's graph that shows it
14 straight up in the air, but I would argue that maybe
15 it's a little bit more -- a little bit lower of a
16 slope, at least initially, and let's take advantage
17 of that and figure out what the consumers actually
18 want and build our policies around consumer choice
19 and allowing them to make the right decisions for
20 themselves.

21 COMMISSIONER ELLIOTT: Just as a point, I would
22 probably tend to differ as much as I know about

1 real-time pricing, I probably would like to have
2 average pricing if I had an electric vehicle, because
3 that would be the ultimate convenience for me. That
4 would make me indifferent to the -- you know, the
5 response to grid to my actions and that's the
6 concern. I think that we're all sharing the concern.

7 And one of the problems I have,
8 particularly with regard to this, is some of these
9 things, you know, do you mandate -- does the car come
10 with a dynamic price? Do you at the dealership say,
11 Well, environmentally, you know, you have these
12 options, this would be the best way to not negatively
13 impact the grid or to absorb renewable power, but the
14 reality of it is is that we have a law in Illinois
15 that mandates the fixed-price option for residential
16 customers that have not chosen alternative providers.
17 So in that environment, without changes to that law,
18 I don't see how we could possibly suggest to anyone
19 that just by the purchase of an electrical
20 application, we're going to impose a rate upon you.

21 It seems to me that this is an opt-in
22 issue and when the education aspect of it says, yes,

1 from an environmental and renewable perspective, this
2 rate would be the most; but for my convenience, I
3 like that flat rate and I have that option -- that
4 legal option. Why wouldn't I take that? And I guess
5 I pose the question: How do we -- how do we resolve
6 this issue with -- I know there are alternative
7 providers out there -- it was mentioned earlier --
8 that offer dynamic pricing options to customers? But
9 the bundled rate provided by the utility, unlike the
10 commercial where the default rates are -- for 100 kW
11 and above, default hourly pricing. We have a default
12 bundled rate of fixed price option and this is a
13 concern.

14 So how could we approach this without
15 legislative changes? And then even if we get the --
16 sort of mandate removed, that option, how do you --
17 how do you move people to this without this
18 regulatory --

19 MS. STANFIELD: We suggested that the
20 Commission have the real-time price be the default
21 for EV purchasers and --

22 COMMISSIONER ELLIOTT: Right, but then you'd

1 remove the default fixed price option and say that --

2 MS. STANFIELD: Well, it still --

3 COMMISSIONER ELLIOTT: -- as other commercial

4 and industrial customers above 100 kW are all -- face

5 the hourly price.

6 MS. STANFIELD: They could opt out so they

7 would still have the fixed price option, but that --

8 you know, since the history --

9 COMMISSIONER ELLIOTT: Opt out with --

10 MS. STANFIELD: Yes.

11 COMMISSIONER ELLIOTT: So if you have EV, you

12 can't opt out?

13 MS. STANFIELD: You can.

14 COMMISSIONER ELLIOTT: Oh, you can?

15 MS. STANFIELD: Sure. But you make the

16 real-time price of the default for EV owners and, you

17 know, we suggest that because the history in Illinois

18 is that those on real-time pricing are seeing real

19 benefits, but they need, you know, a little push to

20 get into the program so our hope would be that not

21 many would opt out, but given the law in Illinois

22 that you point out, you'd still want to give them the

1 fixed price option.

2 MR. MILBERG: It strikes me that even with a
3 million vehicles sold by 2015, which is President
4 Obama's vision and goal, you're still talking about a
5 relatively small proportion of the total number of
6 vehicles. The people that are going to choose this
7 car are going to be less concerned about feeling
8 comfortable and confident that they can plug in in
9 the middle of the day if that's what they want to do
10 because they're buying this because they want to
11 enjoy the environmental benefits. They want to enjoy
12 the notoriety that comes with having an electric
13 vehicle. They want to be able to pull their iPad of
14 cars out and be able to show everyone how
15 technologically savvy they are.

16 I think that all of those things point
17 to the fact that you're getting a unique subset of
18 individuals that are going to be purchasing these
19 vehicles and I think that a big part of this is
20 making the process easy for them to make the right
21 decisions and applying the benefits such that there's
22 a reason why they should go above and beyond the

1 environmental benefit.

2 CHAIRMAN SCOTT: That makes sense on the
3 blocks; but if you start getting the kind of curve
4 like we saw, whether it's a little more gradual or
5 it's as steep as it looked and the price of the cars,
6 if history tells us anything, will start to come
7 down. So you're starting to get a different subset
8 of folks in a very -- the way that we work and the
9 way the Government works in a very short period of
10 time.

11 COMMISSIONER ELLIOTT: In a secondary market
12 rather than prime --

13 CHAIRMAN SCOTT: In a secondary market instead,
14 so doesn't it make sense to try to -- I mean, I
15 understand and agree with what you are saying the
16 first group of -- the first million people if that's
17 the number we're using, but beyond that --

18 COMMISSIONER ELLIOTT: It might be easier to
19 track the driveways earlier; but after awhile, we're
20 not going to know whose driveway it is pulling up
21 in --

22 MR. MILBERG: I agree.

1 COMMISSIONER ELLIOTT: -- or where it came
2 from.

3 MR. MILBERG: And my sense is, a couple things.
4 One, if you try and build a strategy now or when half
5 the vehicles in America or in the world are electric,
6 we're going to be creating a task that will be almost
7 impossible and probably suboptimized at some point in
8 the strategic development.

9 I would also say that even if you look
10 at hybrids as a good example of what this might look
11 like, even in the secondary market, you're not seeing
12 people turn hybrids into hot rods, you are still
13 seeing people that are looking at hybrids as a way to
14 economize their fuel and their usage and we think
15 that that's going to be similar to the issues with
16 the electric vehicles. But if we can build a
17 strategy that works in the short to medium term but
18 continue to have the conversation and build the right
19 process so that the conversation and the information
20 flow continues, that to me, is success at the end of
21 the day for this Commission and for this -- for the
22 charge that we're pushing forward.

1 CHAIRMAN SCOTT: Yeah, I don't disagree with
2 you. But in order for us to get it right in terms of
3 what the environmental benefits are and do we really
4 have an impact on demands on the load, load curves, I
5 mean, for us to do that, it seems like we really
6 can't put off half of that discussion until later. I
7 mean, you've really got to do that now.

8 MR. MILBERG: And I'm not advocating to push
9 the discussion off. I'm saying that we need to have
10 that discussion and we need to come to terms with
11 that and we need to come to some resolution on some
12 of these major questions and I think that everyone
13 sitting in this room would agree that there are some
14 questions that we're not going to answer today and
15 that's the purpose of continuing to push this forward
16 and actually have a facility to work with.

17 I guess what I'm advocating for is
18 that we need to learn what we don't know because I
19 don't even think that we know what we don't know and
20 I think that part of that is that we're in a very
21 unique and exciting position where we have all of the
22 right inputs coming into place that will allow us to

1 almost have an experiment, but at the same time this
2 has real environmental and economic benefits on the
3 State of Illinois and would be an awful shame for us
4 not to take full advantage of the leadership position
5 that we already have here by saying, Well, let's wait
6 to see what other people are doing or we can't answer
7 these questions and so we're going to punt it or any
8 of those matters. To me, this is a call to action,
9 this is a leadership moment.

10 COMMISSIONER ELLIOTT: From a strictly
11 residential perspective, I mean, first of all, we
12 don't have the infrastructure in place to effectively
13 meter and communicate with the EVs in the driveways,
14 we don't have any mandate from a revenues perspective
15 to force in any way or to coerce anyone that buys an
16 EV to take an RTV price that is available that comes
17 with an interval meter with no communication at this
18 point. So it's -- you know, I'm a little puzzled as
19 to how, you know, the nuts and bolts of this is going
20 to move forward. I look at this and say, Am I going
21 to take that small population of early adopters and
22 turn utility rate design completely upside down and

1 move to a default dynamic rate? Because I don't know
2 whose driveway these vehicles are going to show up
3 in. So you take that small cohort and now turn the
4 majority of customers into active opt-outers or angry
5 consumers who don't understand why my rate has
6 changed or the education process has gone from that
7 small cohort, again, to now having to educate
8 everyone as to what I did and why.

9 I'm just still puzzled about how we'd
10 address this rate problem from a regulatory
11 perspective out of the gate because if we don't, if
12 we're going to ignore the implications of this until
13 such time as we see grid implications or distribution
14 systems applications, then I think it's a little too
15 late. So it seems to me that, you know, now is the
16 time. We should be contemplating what the options
17 are in terms of how we go about coordinating the
18 purchase of the vehicle, the necessary infrastructure
19 to do it and the appropriate rate design from the
20 customer's perspective to the extent that -- you
21 know, you may want a real-time price, I may want a
22 flat rate and what are those options available to us?

1 Is it because I purchase an electric vehicle, I no
2 longer have that option or vice versa?

3 MS. McKIBBEN: I was just thinking right out of
4 the gate, you know, we do have a real-time price,
5 it's not mandatory, that may be part of the reason
6 why the folks who are on it seem to be so happy with
7 it because they actively chose it. But the customer
8 education that's going into that program could be
9 utilized or altered in some way, if we found a way to
10 feed it directly to the customer at the right time at
11 purchase of the EV.

12 You know, the real-time pricing
13 program, we think of it as fairly difficult, but from
14 our surveys of our customers, they don't find it
15 difficult and we found ways to convey what needs to
16 be done with real-time pricing. They're a pretty
17 no-brainer. For everyday use, you're checking the
18 weather to see what you're going to wear to work
19 tomorrow, that same information tells you whether you
20 really have to worry about tomorrow's afternoon
21 price, similarly with an electric vehicle, we know
22 that the prices tend to be lowest at the night -- in

1 the nighttime, that's when you should charge your
2 vehicle.

3 So the messaging there is not that
4 difficult, we just have to find a way to consistently
5 get it to the right customers at the right time and
6 to let them know the importance of making this
7 decision.

8 COMMISSIONER ELLIOTT: How do you get them on
9 the radar? What tools are there -- we all know, I
10 think -- I think from the comments, everyone agrees
11 that dynamic providing is the best option to maximize
12 the value of this transportation ship, but how do we
13 get them there?

14 MR. KELTER: Well, we agree that that may be
15 the best option, that's best for society; but in
16 terms of the customer, we want to keep it simple.
17 Customers should be able to go in, buy an electric
18 car, they can plug it into their garage right now and
19 charge the thing and it's not that big a deal. And
20 as ComEd themselves said, it's about the equivalent
21 of plugging in a hair dryer. So -- in terms of the
22 customer that's one thing. In terms of society, it's

1 obviously -- well, I shouldn't say obviously. We
2 believe it's better if customers are charging their
3 cars at night. It's also better if they use all of
4 their other discretionary appliances at night and, in
5 fact, anybody who is using a set-top box on their
6 television and playing the Wii game is using about as
7 much electricity as somebody charging at a Level 2
8 charging station.

9 So, you know, I think we've got to get
10 a grasp around what the policy is going to be on
11 rates going forward and how we're going to send time
12 signals to people in Illinois generally and one thing
13 I did want to add is that ELPC's position is that not
14 everybody who buys an electric car -- they may want
15 the benefit of charging at night without being on
16 real-time pricing for their whole home, so we do
17 think the Commission should be considering a third
18 option for customers where they get a separate meter
19 just to charge their car at night. We know that has
20 some costs involved in it, we're not saying that
21 that's a solution; but we're saying that's something
22 that should be examined.

1 COMMISSIONER FORD: One of the things --

2 COMMISSIONER COLGAN: I have a question.

3 Go ahead.

4 COMMISSIONER FORD: I'm sorry.

5 COMMISSIONER COLGAN: No, go ahead.

6 COMMISSIONER FORD: I was in a -- I don't know

7 if it's the same dialogue; but when everybody says

8 start charging at night, isn't that going to change

9 the peak? If everybody opts to go charge their

10 electric vehicles at night? And isn't that what

11 happened in California when they had that -- I think

12 we were at the same meeting --

13 COMMISSIONER ELLIOTT: No, I don't think the

14 issue in California has been distribution related,

15 since it's a cluster; but I think EIA has estimated

16 that we have enough excess space on the system today

17 without doing anything to fuel 85 percent of the

18 light-duty vehicle fleet. So we've got a lot of

19 vital capacity. The trouble is, we want to keep

20 these things off when the capacity isn't idle, which

21 is a couple weeks ago. At 4:00 o'clock in the

22 afternoon, if everybody comes home from work and

1 plugs in and the reserve margins were already in max
2 gen alerts, what are we doing? And that's the real
3 problem.

4 MS. STANFIELD: There's a good --

5 MR. CUTLER: So far, we've limited ourselves to
6 a conversation of residential EV users. But if you
7 look at the expected demand for electric vehicles, a
8 lot of that is going to be from outside of the
9 residential market, particularly among commercial
10 vehicles, and so there's an opportunity to both
11 provide education to large corporate users, either --
12 of fleets -- both state or public and private as
13 well, and also teach them about rates and I just want
14 to make sure that we -- as we continue this policy
15 discussion, make sure that we're inclusive of all the
16 types of uses of electric vehicles.

17 COMMISSIONER ELLIOTT: I think the issue there
18 doesn't concern me as much as commercial customers of
19 that nature, anything above 100 kW faces an hourly
20 default rate already so --

21 COMMISSIONER FORD: And most of the fleets are
22 owned by the utilities.

1 COMMISSIONER ELLIOTT: What I am concerned
2 about are the small commercial and residential
3 customers that have the default fixed rate --

4 COMMISSIONER O'CONNELL-DIAZ: But I think he's
5 addressing the issue of the education and that there
6 is a populus of folks that are going to be using
7 these vehicles. I mean, actually the drivers of
8 these vehicles are going to have to be instructed.
9 So there's another point of --

10 MR. CUTLER: Another avenue for both education
11 and for adoption.

12 COMMISSIONER COLGAN: Josh, in your testimony,
13 you talked about implementation of distributed
14 renewable generation close to vehicle deployment
15 pockets and allowing for vehicle-to-grid technology
16 dissemination. Can you talk a little bit about that?

17 MR. MILBERG: Sure. So in terms of what I was
18 talking about or how I envision --

19 COMMISSIONER COLGAN: Yeah, how does that work?
20 I mean, tell me what that means and how it works.

21 MR. MILBERG: Well, I think all of those are
22 part of a smart grid world where it allows for you to

1 distribute generation that goes directly to the
2 vehicle or that is nearby the vehicle. So as an
3 example, CNT or I-Go has a grant from the State and
4 is working with the City on putting distributed
5 generation alongside their charge stations as part of
6 the Chicago project and I think that that's an
7 exciting -- that's an exciting opportunity and
8 exciting pilot, we'll see how it works, of course,
9 their economics right now are relatively challenging
10 with distributed generation.

11 Vehicle regrid is another thing that I
12 think is very exciting as we move forward. What I
13 was trying to get at more broadly with those
14 statements, though, is that this is more than just
15 plug your car in, get a charge and drive away from a
16 public infrastructure perspective. What's really
17 important here is that this is -- this is one of
18 those tangible opportunities to really understand
19 what the benefits of smart grid on both the
20 commercial grid and then also on the consumer grid
21 and how do we -- how do we really start to make this
22 real to people that historically don't care about

1 their grid and don't care about electricity distr- --
2 or electricity transmission distribution.

3 COMMISSIONER COLGAN: So it's taking advantage
4 of the real-time pricing in the middle of the night
5 may be at a negative rate and then distributing that
6 charge back into the system during the peak?

7 MR. MILBERG: So that's the vehicle-to-grid
8 technology and you're seeing that outside of
9 vehicles; but battery-to-grid, there are a couple of
10 interesting little incubator businesses coming out of
11 IIT specifically that are looking at ways to
12 basically deploy lots and lots of batteries around
13 and -- particularly in heavy use areas to try and be
14 able to sell back to the grid at NP prices.

15 So there are businesses that are going
16 on right now, vehicle-to-grid, especially as you
17 start to see vehicles disseminated more broadly, have
18 some really exciting opportunities because the
19 difference when you think about electric or
20 e-mobility versus regular mobility is that really you
21 have more control over the total amount of energy
22 that you're using at any one time. It's much more --

1 it's much more dynamic how much energy you're going
2 to keep in your vehicle because you have so many more
3 discrete opportunities to charge your vehicle, so you
4 would be okay if you knew that you have a 20-mile
5 commute, you'd be okay taking your vehicle from
6 100-mile range down to, say, a 30-mile range if
7 you're going to get paid for that and that payment is
8 going to offset your fuel costs for 6 months or
9 whatever the economics are.

10 There are some really interesting new
11 technologies and as I think about smart grid and work
12 stations are a little bit farther afield, but the
13 exciting thing about smart grid is that it's an
14 implementation of a myriad -- a myriad of
15 technologies that all go to the benefit of society as
16 we think about it.

17 And I see this is one of those
18 interesting areas where you have real -- a real
19 opportunity to do a pilot.

20 COMMISSIONER COLGAN: Would you be able to take
21 advantage of that right now if you had an electric
22 vehicle?

1 MR. MILBERG: You would not. So Mercedes-Benz
2 approached the City about 6 months ago about
3 purchasing or renting a number of Mercedes-Benz
4 trucks and using them in a vehicle-to-grid pilot and
5 although I don't think that the City would be okay
6 with purchasing all electric Mercedes-Benz, I think
7 that Mercedes-Benz is certainly looking into electric
8 vehicle-to-grid opportunities, but nobody has done it
9 thus far.

10 COMMISSIONER ELLIOTT: There are some
11 restrictions at the wholesale side. It's at least a
12 1-megawatt minimum, so you have to aggregate up to
13 that level. But following up on the B2G issue, can
14 you functionally do that with Level 1 charging?

15 MR. MILBERG: With Level 1 charging? I don't
16 believe -- not with the current Level 1 chargers, I
17 don't believe so. But we're also talking about a
18 situation where that tech- -- where there has not
19 been an impetus to try and allow that in Level 1
20 charging.

21 I think that as you start to see the
22 market take place, you're going to see some

1 innovation and entrepreneurship that might...

2 CHAIRMAN SCOTT: Let's go to the City and then
3 back to NRDC.

4 MS. BINGHAM: Regarding the issue of
5 vehicle-to-grid technologies that the auto
6 manufacturer has found are warranting these batteries
7 in the vehicles and do not want to see additional
8 discharges that -- of the batteries in charging that
9 it is not propelling that vehicle down the road, it's
10 something definitely has a potential for the future;
11 but currently there's other applications that we can
12 take advantage of batteries. With I-Go, we're also
13 working with deploying some batteries with their
14 charging stations and the solar canopies to take
15 advantage of the solar -- the renewable energy when
16 the vehicle is not there. So the electrons from that
17 solar canopy will actually be stored in that battery
18 waiting for the vehicle to return when the user
19 brings it back. So there's other technologies using
20 batteries, that may not be vehicle-to-grid; but that,
21 we're looking at as well.

22 MS. STANFIELD: I wanted to draw your attention

1 to specific Northwest National Labs study that we
2 cited in our comments which they looked at two
3 different -- very different types of utilities in
4 Cincinnati Gas and Electric and San Diego Gas and
5 Electric and they did some modeling to see what would
6 happen to the marginal price of power with high
7 penetration of electric vehicles charging at night
8 and they found that in both cases, there was a
9 significant reduction in the price of power as a
10 result of the additional and more efficient use of
11 existing infrastructure.

12 So I raise this because of
13 Commissioner Ford's comment about creating another
14 peak at night. Their assumption was that every
15 single household had an electric vehicle and there
16 was still plenty of nighttime capacity to satisfy
17 that need and I also raise it because in the previous
18 panel, there was a lot discussion about the
19 additional costs that electric vehicles might bring
20 to the grid; but there are -- if we do our jobs
21 right, we could overcome those costs with, you know,
22 lowering the marginal costs of power in a way that

1 benefits everyone and would be socialized throughout
2 the system. So I raise that just as a -- you know,
3 underscore that there is a role for the Commission
4 right now getting ahead of the curve and making sure
5 that as -- that we're doing this in a way that brings
6 benefits and not just costs.

7 COMMISSIONER O'CONNELL-DIAZ: Just to that
8 point. That point of the benefits is really
9 important and, unfortunately, that's a message that
10 just really doesn't -- it never gets down to the
11 place where someone is looking at their bill and
12 saying, Gee, I got all those benefits in there and I
13 really am thankful for all those benefits I have.

14 MR. KELTER: When I see my bill, that's what I
15 think of.

16 COMMISSIONER O'CONNELL-DIAZ: But, I mean, that
17 is -- you know, it is because we will have cleaner
18 air, we can all sit in the room and talk about this,
19 but Joe Q. Public sitting on the street reading their
20 bill --

21 MS. STANFIELD: We're talking about actual --

22 COMMISSIONER O'CONNELL-DIAZ: -- how do we

1 convey that benefit? I think that's an important
2 message that -- for people to, you know, get these
3 cars and to use the different types of pricing that,
4 you know, can help our environment and help their
5 pocketbook and that's just -- it's not -- it's not
6 being communicated --

7 MS. STANFIELD: Environmental benefits are
8 something we're working on every day; but in this
9 case, I'm really talking about, you know, an
10 actual -- in the case of San Diego Gas and Electric,
11 a 25 percent reduction of the price of electricity,
12 so it's a little easier to --

13 COMMISSIONER ELLIOTT: Well, that's sort of the
14 benefit that you get from real-time pricing. You'll
15 see those system effects if the pricing is through
16 and I'm sure Anne can speak to that with real-world
17 examples. The problem is how do you translate that
18 price to the customer that purchased the vehicle.

19 MS. WEIL: You know, just one quick point on
20 that. Real-time pricing can be a very powerful
21 incentive to get people to charge their cars at night
22 certainly; but luckily in this case, studies of

1 consumer behavior are showing that people -- most
2 people are going to charge their cars at night
3 because that's when their cars are home in their
4 garages. So luckily there's a good coincidence
5 between just sort of, you know, how people are going
6 to choose to charge and the behavior that we want
7 them to adopt and so --

8 COMMISSIONER ELLIOTT: There's a 4- or 5-hour
9 overlap in peak period.

10 CHAIRMAN SCOTT: It's getting them to do it at
11 8:00 at night instead of --

12 COMMISSIONER ELLIOTT: Or at 9:00 at night
13 instead of 5:00 at night.

14 MS. WEIL: Yeah, absolutely. And, you know,
15 the other thing we should be aware of is the car
16 manufacturers are building timers into even the first
17 generation of cars where -- I had a Chevy Volt for a
18 week a couple months ago and, you know, it was super
19 easy to just go on the control panel and set it to
20 charge starting at 9:00 p.m. instead of --

21 COMMISSIONER ELLIOTT: Did you have a time --

22 MS. WEIL: Sorry?

1 COMMISSIONER ELLIOTT: Did you have a
2 time-differentiate rate?

3 MS. WEIL: No, I didn't --

4 MR. KELTER: She's just a good citizen.

5 MS. WEIL: -- but the car manufacturers are
6 helping us out by trying to make it easy for people
7 to do that even in the absence of time-differentiated
8 rates.

9 COMMISSIONER ELLIOTT: Yeah, I mean, something
10 as simple as a time-reduced rate would go a long way.
11 But, you know, to the point of actually the real-time
12 pricing, I mean, if you could translate those signals
13 through, it indicates what actual system conditions
14 are now if a transmission line goes down, a power
15 line goes out, it doesn't matter what time the signal
16 is sent and actions can be taken whether the vehicle
17 without human intervention and that's what I think
18 we're all after; but, you know, there are more ways
19 to approach this.

20 MS. McKIBBEN: I'm no metering expert, but I
21 was just thinking that once we do get the
22 vehicle-to-grid and -- with the meters that would be

1 needed for that kind of work, there may be
2 opportunities to make that, how much you took off and
3 how much you put back on much more transparent for
4 the customer.

5 CHAIRMAN SCOTT: We just kind of hit the time
6 limit here. So if there are any other points anybody
7 would like to make or anything that we might have
8 missed, we'll continue the dialogue. Anything we
9 need to consider today?

10 (No response.)

11 Again, thanks very much for your being
12 here. We really appreciate it and we appreciate all
13 of your submissions and thank everybody who was here
14 today. Again, our thanks very much. Great
15 discussion and certainly a lot for us to think about
16 something -- as we work on what our next immediate
17 steps and our further steps beyond that, so we really
18 appreciate all of your input on that and I know we
19 will be asking for more as we go forward and as we
20 work with Kate's group as well in the months to come.

21 (Whereupon meeting adjourned.)

22